



Chevron Dike Construction Near Oquawka Illinois

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Location

Des Moines County, Iowa

State(s)

IA

Congressional District(s)

IA-2

Status

The District prepared an environmental assessment (EA) titled, *Chevron Dike Construction Near Oquawka, Illinois, Pool 18, Mississippi River, March 2008* to help assess the potential impacts to the natural and human environments. This EA is attached to this project fact sheet under Supplemental Information. The EA details the District's decision-making efforts to meet the project's goals of reduce dredging, create habitat diversity, protection of existing islands and possible restoration of lost islands. The EA analyzes the practical alternatives, and evaluates the potential environmental impacts of each alternative. A Clean Water Act, Section 404(b)1 Evaluation is also found in the EA. This evaluation addresses the potential impacts to wetlands and water quality. Construction of the four chevrons is nearing completion. Three of the four chevrons are completed.

Description

The Rock Island District evaluated a variety of solutions to decrease the amount of dredging in the Oquawka Reach of Pool 18, near the town of Oquawka, Illinois (Mississippi River, River Miles 415-416). The District determined that new construction of four chevrons is needed to redirect river flows toward the navigation channel. The chevrons will be built to an elevation of 531.5 mean sea level (msl), 3.5 feet above flat pool elevation of 528 mean sea level. Each structure would be an average linear length of approximately 1,325 feet. The chevron is a V- or U-shaped rock structure pointing upstream. Not only do chevrons divert river flow toward the main channel similar to a wingdam, they also create several different types of river habitat, with variable depth and flow velocities. During high water events, river flows overtopping the structures would create a large scour hole just downstream of the structure's apex. After the flows drop below the crest of the structure, the scour hole formed at high flow becomes an area of deep slack water. This environment is conducive to the needs of overwintering fish, and provides the ideal conditions for a juvenile and larval fish nursery. The potential plant life established along the wetted edges and uneven rock structure would provide good escape cover and foraging habitat for young fish. Chevrons would also divert river flows toward the navigation channel thereby reducing the amount of erosional forces upon existing islands as well as potentially establishing islands at historic locations in this area.

Summarized Project Costs

Federal Cost	\$TBD
Non-Federal Cost	\$N/A

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Total Cost	\$
Federal Allocations through FY 2007	\$
Scheduled Federal Allocation for FY 2008	\$
Balance to Complete	\$

Additional Project Information

The environmental assessment is attached under Supplemental Information. The District Engineer signed the Finding of No Significant Impact on June 24, 2008.

Major Work Item (This Fiscal Year)

Construction began in 2010 on Chevron No. 1. The District completed Chevron No. 2 in 2011. The District anticipates continuing to build Chevrons 3 and 4 in 2012.

Major Work Item (Next Fiscal Year)

Finish work

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