

MEMORANDUM THRU

~~PM~~ *6-26-08*
~~OD~~ *SDW 6/23/08*
~~OC~~ *6/23*
~~XA~~ *6/23*
~~DP~~ *6/23*
~~DD~~ *6/23*
 FOR DE *24 Jun 08*

SUBJECT: Environmental Compliance for Chevron Dike Construction Near Oquawka, Illinois, Pool 18, Mississippi River, River Miles 415.0 – 416.2, Des Moines County, Iowa

1. This package completes the National Environmental Policy Act (NEPA) and Clean Water Act compliance process for constructing four chevron dikes in on the Mississippi River, Pool 18,
2. The Statement of Findings (SOF) (enclosure), serves as an executive summary outlining the environmental coordination the District initiated and integrated into the project planning. Attached to the SOF is the signatory page of the Clean Water Act Section 404(b)(1) Evaluation, entitled *Findings of Compliance or Noncompliance With the Restrictions on Discharge*. Also attached to the SOF is the Finding of No Significant Impact (FONSI), which is the summary environmental document stating the District does not anticipate significant environmental impacts resulting from project implementation.
3. No controversial or contentious issues have arisen for the proposed channel maintenance project.
4. The PM-A recommends the District Engineer sign the enclosed SOF, Findings of Compliance, and FONSI. After signing, please return to PM-A. The point of contact for this action is Mr. Joe Jordan, PM-A, telephone ext. 5791.

Encl

Dorene A. Ballman
 for: KENNETH A. BARR
 Chief, Economic and Environmental
 Analysis Branch

CF:
 Dist File (PM)
 OD
 OD-T (Brenner, McVay)
 OD-PP (Hannel)
 PM-A (Jordan)

**CHEVRON DIKE CONSTRUCTION
NEAR OQUAWKA, ILLINOIS**

POOL 18, MISSISSIPPI RIVER

**RIVER MILES 415.0 - 416.2
DES MOINES COUNTY, IOWA**

STATEMENT OF FINDINGS

1. Project Description

The U.S. Army Corps of Engineers, Rock Island District (District), has the responsibility to maintain the Mississippi River's 9-foot navigation channel in Pool 18. The Pool 18 Oquawka Reach area continues to challenge the District with periodic shoaling in the channel. Dredging, dredge material placement, and channel training structures, i.e., wingdams, are the primary tools the District uses to maintain the navigation channel. Recent flow studies indicate the channel wanting to shift westerly from its present configuration, through Dasher Chute toward the Iowa side of the river. This shift will reduce the river flows in the main channel, thereby promoting sediment to settle in the channel and risking a navigation slow down or stoppage.

The District sought a solution less costly and with fewer environmental impacts than dredging and dredge material placement. While the District considered conventional wingdam construction and/or modification, the state and Federal resource agencies who oversee the Mississippi River natural resources expressed an interest in chevron design and its habitat diversity potential.

Chevron design would include construction of four chevrons built to an elevation of 531.5 mean sea level (msl), 3.5 feet above flat pool elevation of 528 msl; in other words, the chevrons would be 3.5 feet above the water surface at normal river stage. Each structure would be an average linear length of approximately 1,325 feet. Unlike the typical wingdam, chevrons do not connect to the shoreline. A chevron is a V- or U-shaped rock structure pointing upstream. Not only does a chevron divert river flow toward the main channel—similar to a wingdam—it also creates several different types of river habitat, with variable depth and flow velocities. River flows overtopping the structures during high water periods create a large scour hole just downstream of the structure's apex. Downstream of this area the scoured material would settle out in a shallow bar.

The District selected a chevron elevation 3.5 feet above flat pool for two reasons: 1) 3.5 feet is the 2-year flood height, which means this height is low enough to develop and maintain a scour hole behind the structure on a routine basis; and 2) 3.5 feet is at a height above the normal flat pool elevation, making the chevrons are visible to recreation boaters most of the time.

If the District builds these structures, they would be the first of their kind built in the Rock Island District.

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The District's Economic and Environmental Analysis Branch prepared a draft Environmental Assessment (EA) and Clean Water Act Section 404(b)1 Evaluation to assess the impacts of the proposed project. The District's Regulatory Branch distributed a Clean Water Act 404 Public Notice to invite public comment on the project's potential impact to wetlands.

This Statement of Findings documents the findings, coordination, and conclusions of these efforts. The supporting documents, signatory pages, and correspondence are attached to the SOF.

2. Clean Water Act Compliance

2.1 Section 404 Public Notice. On April 2, 2008, the District's Regulatory Branch prepared and distributed a Clean Water Act Section 404 Public Notice CEMVR-OD-P-2008-0255 for the construction of four chevrons near Oquawka, Illinois. The Public Notice was distributed to 197 recipients including local post offices; appropriate city, state, and Federal agencies; non-government organizations; historic preservation offices; Native American tribes and nations; and other interested parties. A mailing list for the Public Notice is included in the permanent file at the Rock Island District. The public review period ended on May 1, 2008.

The Illinois Department of Natural Resources and the State Historical Society of Iowa responded to the Public Notice; neither organization identified any objections to the proposed project as outlined in the Section 404 Public Notice.

In response to the Public Notice, both the Miami Tribe of Oklahoma and the Winnebago Tribe of Nebraska Repatriation requested notification and further consultation if any human remains, village sites, religious or cultural artifacts and/or any objects falling under the Native American Graves Protection and Repatriation Act are discovered during the project.

A copy of each correspondence is included as an attachment to this statement of findings.

2.2. Clean Water Act Section 404(b)1 Evaluation. Any Federal activity involving discharges of dredged or fill material requires the action agency to complete a 404(b)1 Evaluation. A 404(b)1 Evaluation is a planning document addressing specific criteria to consider the nature and degree of effect the proposed discharge would have, individually and cumulatively, on any waters of the United States. As part of this evaluation, the District also considered the proposed method, volume, location, and rate of discharge, as well as the individual and combined effects of current patterns, water circulation and fluctuations, wind and wave action, and other physical factors.

The District included their 404(b)1 Evaluation in Appendix B of the EA. Attached to this Statement of Findings (SOF) is the signatory page of the 404(b)1 Evaluation, titled *Findings of Compliance or Noncompliance With the Restrictions on Discharge*.

2.3. Clean Water Act Section 401 Water Quality Certification. The Iowa Department of Natural Resources (DNR) and Illinois Environmental Protection Agency listed the Mississippi River on the 2007 Clean Water Act Section 303(d) and 2006 Clean Water Act Section 303(d) lists, respectively, as an impaired waterbody. The causes of impairment on this segment of the Mississippi River are polychlorinated biphenyls, fecal coliform, sulfates, manganese, aluminum, arsenic, and bacteria. It is important to consider the impaired status of the Mississippi River before issuing the 401 permit. The project should not be authorized if it will result in further impairment of the listed waterbody. As stated in EA appendix B, *Clean Water Act Section 401(b)1 Evaluation*, certification under 401 of the Clean Water Act would be obtained from the

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State of Iowa prior to implementation, and no contamination of the river is anticipated.

From April 4 to April 14, 2008, Iowa DNR published a 10-day 401 certification Public Notice in the Burlington Hawk Eye newspaper. The Public Notice generated no comments. On May 8, 2008, the Iowa DNR issued a Clean Water Act Section 401 Water Quality certification (attached) for the project to the District.

The District's Clean Water Act Public Notice was supposed to prompt the Iowa DNR to either issue or deny a standard floodplain construction permit for the project. To date, the Iowa DNR Floodplain Management Office has not acted upon this permit requirement. In the past, the District has proceeded to construction for similar projects without a response from the Iowa DNR Floodplain Management Office, and will do so for this project. If the Iowa DNR issues a floodplain construction permit with special conditions, the District will adhere to those permit conditions.

3. National Environmental Policy Act

The District circulated the EA on March 20, 2008 for an approximate 30-day public review ending on April 23, 2008. This EA contained the initial agency coordination gathered for input on any environmental concerns. The purpose of the public review was to gain previously unknown information about the project site, potential project impacts, and/or information concerning local resource impacts.

On several occasions (in meetings and by email) the District contacted the U.S. Fish and Wildlife Service (USFWS) for Endangered Species Act compliance. While the USFWS verbally concurred the project would not likely adversely affect any threatened or endangered species, it did not provide any written correspondence validating their concurrence.

Parties provided comments in response to the EA include:

- Mr. Phillip Rowan, private citizen
- Iowa Department of Transportation (IA DOT)
- Sierra Club, Eagle View Group
- Illinois Department of Natural Resources (IL DNR)
- US Environmental Protection Agency (EPA), Region 5
- US EPA, Region 7
- Federal Emergency Management Agency, Region 5 (FEMA)

On April 1, 2008, Mr. Phillip Rowan called Mr. Joe Jordan, PM-A, with one concern about the project. Mr. Rowan stated ice flows may cause damage to the proposed structures. After consulting the St. Paul District channel maintenance staff about their exposed rock structures, the District determined ice may cause minor maintenance, but no more than typical rock structures maintenance in the Mississippi River.

In a letter dated April 3, 2008, the IA DOT stated they have no comments or suggestions regarding the conclusions reached in the EA.

In a letter, dated April 5, 2008, The Eagle View Group of the Sierra Club stated they did not have any comments concerning the project.

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In a letter dated April 15, 2008, the IL DNR concurred the proposed chevron construction is unlikely to have any notable adverse effects and supported the Finding of No Significant Impact.

On April 24, 2008, the EPA, Region 5 telephoned the District and stated they did not have any comments concerning the project.

In a letter, dated April 24, 2008, the EPA, Region 7, stated they did not have significant concerns with the project or objections to the draft Finding of No Significant Impact.

The FEMA, responded to the EA commenting on the District's compliance with Executive Order 11988, Protection of Floodplains. While the EA addressed EO 11988 stating the project is in full compliance, the EA did not detail why it was in full compliance. Since the project location is in the river and the project will not have significant adverse impacts to structures in the floodplain, the EA did not have to contain a full explanation of EO 11988 compliance. The FEMA concurred.

In addition, the Burlington (IA) Hawk Eye mentioned the project on two occasions: a newspaper article presenting a balanced report of the project and an editorial (April 2, 2008) supporting the project stating, "[the project] seems appropriate and reasonable."

Attached to this SOF is the NEPA signatory page, the *Finding of No Significant Impact* (FONSI).

4. Project Implementation Schedule

Based upon the environmental compliance efforts, the District should implement the chevron construction as proposed. The project planning process does not require additional environmental studies, or reviews periods. This project does not require any pre- or post-construction mitigation efforts.

5. Summary of Environmental Impact Review

Review of the EA did not reveal any potentially significant adverse impacts direct, indirect, or cumulative, resulting from implementation of the project, as proposed. The selected base plan reflects the minimum possible action addressing chevron construction. Thus, the District prepared a FONSI and included it in the EA.

6. Summary of Findings

I find the implementation of the project, as proposed, and under the conditions set forth, and as prescribed by regulations published in 33 CFR Parts 320 to 340, and 40 CFR Part 230 (if applicable), is not contrary to the public interest.

24 JUN 08

Date



Robert A. Sinkler
Colonel, U.S. Army
District Engineer

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**CHEVRON DIKE CONSTRUCTION
NEAR OQUAWKA, ILLINOIS**

POOL 18, MISSISSIPPI RIVER

**RIVER MILES 415.0 - 416.2
DES MOINES COUNTY, IOWA**

**CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION**

**FINDINGS OF COMPLIANCE OR NONCOMPLIANCE WITH
THE RESTRICTIONS ON DISCHARGE**

1. The District made no significant adaptations of the 404(b)(1) Guidelines relative to this evaluation.
2. Evaluation of Alternatives Including the Proposed Action. (See EA Section II.)
 - A. No Federal Action. No action on the part of the Corps of Engineers means no new construction would occur. Without construction, repeated dredging would be required, as the existing structures are insufficient to reduce the need for future dredging and channel training works construction.
 - B. Construct Training Works in Other Locations or Configurations. While this alternative would meet the project objectives of assisting in maintaining the 9-foot navigation channel and providing habitat diversity, it did not meet the objectives of protecting existing islands from erosion and potentially building islands at historic island sites.
 - C. Chevron Construction. This is the preferred alternative. The District would build four chevrons—two at the head end of existing islands and two at historic island locations. This alternative would meet the project objectives of assisting in maintaining the 9-foot navigation channel; providing habitat diversity; protecting existing islands from erosion,; and potentially building islands at historic island sites.
3. This project complies with 40 CFR 230.11 guidelines and project conditions to minimize pollution or adverse effects to the affected aquatic ecosystems. The District considered all the resources identified in 40 CFR 230 Subparts A through H in this Evaluation.
4. The District obtained the permits, certification, and/or waiver of certification under Section 401 of the Clean Water before construction. The project will be in compliance with water quality requirements of the Iowa DNR.
5. This project would not introduce significant quantities of toxic substances into nearby waters or result in appreciable increases in existing levels of toxic materials.

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6. The project would not likely to adversely affect any state- or federally-listed threatened or endangered species.
7. The project would not affect any municipal or private water or degrade any waters of the United States.
8. The project would not affect marine sanctuaries.
9. The materials used for construction would be chemically and physically stable and non-contaminating.
10. The District; the Committee to Assess Regulating Structures; state and Federal agencies; and the public have not identified other timely, practical alternatives. The proposed action is in compliance with Section 404(b)(1) of the Clean Water Act, as amended. The proposed actions would not significantly impact water quality and would improve the integrity of an authorized navigation system.

27 JUN 08

Date



Robert A. Sinkler
Colonel, U.S. Army
District Engineer

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NEAR OQUAWKA, ILLINOIS**

POOL 18, MISSISSIPPI RIVER

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DES MOINES COUNTY, IOWA**

FINDING OF NO SIGNIFICANT IMPACT

The U.S. Army Corps of Engineers, Rock Island District (District) proposes to construct four chevrons in the Mississippi River, Pool 18, near Oquawka, Illinois. These exposed rock structures will divert river flows toward the main channel, thus reduce shoaling in the navigation channel and subsequent channel maintenance dredging. Additionally, these curved structures will create diverse aquatic habitat and provide island protection. The District has detailed the information concerning this proposal in an accompanying environmental assessment. The District determined this alternative meets the objectives of the local channel maintenance needs as well as providing environmental benefits at no additional cost. The other alternatives did not meet the channel maintenance requirements and/or do not provide diverse environmental benefit.

I have reviewed the information provided in the accompanying environmental assessment, along with data obtained from cooperating Federal, state, and local agencies and from the interested public. Based on this review, I find the proposed construction of four chevrons will not significantly affect the quality of the human environment. Therefore, it is my determination that an Environmental Impact Statement (EIS) is not required. The District will reevaluate this determination if warranted by later developments.

Alternatives considered along with the preferred action were:

- No Federal action
- Construction of training works in other locations or configurations

Factors considered in determining that an EIS is not required are:

- The action should reduce the future need for channel maintenance dredging and placement activities in this section of the river.
- Initial loss of and disturbance to aquatic habitat during construction will be offset by increased habitat diversity and protection following project completion.
- The Corps does not anticipate any significant social, economic, environmental, or cultural impacts as a result of this action.

24 JUN 08

Date



Robert A. Sinkler
Colonel, U.S. Army
District Engineer

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