

IEPA Log No.: **C-0058-10**
CoE appl. #: **2010-0112**

Public Notice Beginning Date: **January 31, 2011**
Public Notice Ending Date: **March 2, 2011**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Applicant: U.S. Army Corps of Engineers, Rock Island District, Clock Tower building, Post Office Box 2004, Rock Island, Illinois 61204-2004

Discharge Location: This regional permit will authorize fill within waters of the State of Illinois except wetlands for the purpose bank stabilization throughout the State of Illinois except within Cook, DuPage, Kane, Lake, McHenry and Will counties.

Name of Receiving Water: General use waters of the State.

Project Description: Re-issuance of Regional Permit 16 Bank Stabilization Activities in the State of Illinois.

The Illinois Environmental Protection Agency (IEPA) has received a notification regarding Section 401 water quality certification to discharge into the waters of the State associated with a Section 404 Regional Permit proposed by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the permit and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification request, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Darren Gove at 217/782-3362.

DRG:C-0058-10_401 PN and FS_01Apr10.docx

Fact Sheet for Antidegradation Assessment
For Corps of Engineers Districts
IEPA Log No. C-0058-10
COE Log No. 2010-0112
Contact: Mark Books; 217/785-6937
Public Notice Start Date: January 31, 2011

The U.S. Army Corps of Engineers, Rock Island District, St. Louis District, Louisville District, and Memphis District (USACE) have proposed reauthorization of Regional Permit 16 for bank stabilization activities within jurisdictional waters located in the State of Illinois. This Regional Permit would be effective in all counties within the state excluding Lake, Cook, Will, DuPage, Kane, and McHenry counties that are within the Chicago District of the USACE.

The proposed regional permit includes the following activities: blanket riprap, seawalls, gabions, minor bank shaping with appropriate biotechnical streambank protection techniques, bendway weirs, longitudinal peaked stone riprap, stone hardpoints, stream barbs, and rock riffles. The construction of longitudinal peaked stone riprap, bendway weirs, stream barbs, and rock riffles are not to be authorized under this regional permit on the Mississippi River or on the Illinois River.

The total affected length of shoreline, stream bank, or channel to be protected under this regional permit shall not exceed 1000 feet. Generally, only those reaches of shoreline, stream bank, and channel which are experiencing erosion are covered by this regional permit. No material shall be placed in excess of the minimum needed for erosion protection. This regional permit does not authorize any of the following activities: stream channelization, channel modifications such as excavating pilot channels, the placement of material other than on an area of eroded bank, and projects which conflict with a Federal, state, or local project improvement. The following materials may not be used for projects authorized under this regional permit: auto bodies, tires, garbage or debris, scrap lumber, metal refuse, roofing materials, broken concrete containing asphalt, asphalt or other bituminous materials, or any material which would cause water pollution as defined by the Illinois Environmental Protection Agency (IEPA). The following materials may be used: suitable clean materials, free from debris, trash, and other deleterious materials; rock, broken concrete, steel sheet piling, cellular blocks, fabric-formed concrete, concrete filled fabric mats, gabion baskets, rock and wire mattresses, sand/cement filled bags, geotechnical fabric materials, natural vegetation (with proper grading), and treated timber. If broken concrete is used, all protruding material such as reinforcing rods shall be cut flush with the surface of the concrete and removed from the project area. If approval is not specifically granted for a specific material, it is deemed to not be allowable under this regional permit.

All material utilized shall be properly sized or anchored to resist anticipated forces of current or wave action. Materials shall be placed in such a way which will not cause erosion, or the accumulation of debris on properties adjacent to or opposite the project. Materials shall be placed so that the modified bank full width and cross sectional area of the channel will conform to, or be no more restrictive than that of the natural channel upstream and downstream of the site. Disturbance of vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation. All disturbed areas shall be seeded or otherwise stabilized upon completion of construction. Excess material excavated during the construction of bank or shoreline protection shall be placed in accordance with local, state, and Federal laws and shall not be placed in a

floodway or in any water of the U.S. including wetlands. The use of natural materials may be considered for bank protection where feasible and appropriate. Individual projects proposed under this regional permit must not jeopardize the continued existence of any species or the critical habitat of any fish and wildlife, or plant which is designated as endangered or threatened pursuant to the Endangered Species Act of 1973 as amended (16 U.S.C. 1531 et seq.). The habitat range of the decurrent false aster (*Boltonia decurrens*) is located within the floodplain of the Mississippi River (St. Clair, Alexander, Jackson, Monroe, Randolph, and Union Counties) and the floodplain of the Illinois River (Bureau, Fulton, Jersey, Marshall, Mason, Morgan, Peoria, Putnam, Schuyler, Tazewell, Woodford, Brown, Calhoun, Cass, Green, Gundy, LaSalle, Madison, Pike, and Scott Counties). The proponent of any project proposed within one of these counties in the 100-year floodplain of the Mississippi River or the Illinois River or where a tributary stream flows into the 100-year floodplain of Mississippi River or the Illinois River must arrange for the project site to be investigated by a qualified botanist or environmental scientist for the occurrence of the Federally threatened plant species. Written documentation, provided by the botanist or environmental scientist, must be provided to the Corps of Engineers for consultation with the U.S. Fish and Wildlife Service to ensure compliance with the Endangered Species Act of 1973 as amended (16 U.S.C. 1531 et seq.). Projects in environmentally sensitive areas (wetlands, endangered species, etc.) shall be excluded from processing and approval under this regional permit. Also, if in the opinion of the Corps of Engineers, the project may not be in the public interest due to any unique circumstances, the Corps may require individual permit on a case-by-case basis. This regional permit does not authorize the discharge of fill into wetlands.

The following includes general design considerations for the bank stabilization techniques. Additional special conditions may be added as deemed appropriate to protect the aquatic environment on a case-by-case basis for any activity authorized under this regional permit.

(1) Blanket Riprap

- a. Bank shoreline protection must be less than 1,000 feet in length and must contain less than two cubic yards of fill material per running foot below the ordinary high water mark.
- b. For projects involving continuous placement of riprap along the bank, toe of the bank, or other similar applications, the cross sectional area of the natural channel shall not be reduced by more than 10 percent nor the volume of material exceed 2 cubic yards per lineal foot of stream bank or shoreline. The bank may be graded to obtain a flatter slope and to lessen the quantity of material required.
- c. A well-distributed mix of stones weighing from 20 to 200 pounds should be used.
- d. The riprap should be from 12 inches to 18 inches thick. Portions of the riprap layer under water should be increased to 18 inches to 30 inches thick.
- e. Riprap materials shall not be placed at a steeper slope than 2:1 for dumped riprap and 1.5:1 for hand-placed riprap. A bedding layer of either six inches of gravel or filter material must be used if required to prevent loss of fines through the riprap material. The riprap must be sized to withstand the anticipated forces from flood flows or wave action.
- f. A riprap trench or apron should be provided at the base of the protected bank for stability.

downstream face of the weir. Bendway weirs may extend into the channel a maximum of 50% of stream width. Bendway weirs should be constructed based on engineering/design principles developed by the USACE. The construction of bendway weirs is not authorized under this regional permit on the Mississippi River or on the Illinois River.

- (7) Stream barbs. A stream barb is a rock structure which projects out from the bank on a sharp upstream angle of 20 to 30 degrees, measured from bank target line. Stream barbs are designed to direct the stream current away from the eroding bank to the center of the channel. The barbs will be built of well-graded stone with an upper weight limit of 650 pounds to 1000 pounds. At the bank, the top of the barbs will be constructed to the design height, typically 4 to 8 feet above the streambed. The top of the barbs will incline from the bank end to streambed level at the streamward end. The incline will be according to design, typically 10%. On silt-bottom streams, the barbs will be keyed into the streambed by excavating a core trench for the full length of the barb and backfilling with riprap rock. The barbs will be keyed into the outer bank. The bank key trench will be excavated perpendicular to the streambank from the streambed to top-of-bank, and backfilled with riprap rock. Stream barbs are designed to extend into the channel a maximum of 35% of stream width. Stream barbs should be constructed on engineering/design principles developed by the USACE and the U.S. Department of Agriculture, Natural Resources Conservation Service. The construction of stream barbs is not to be authorized under this regional permit on the Mississippi River or on the Illinois River.
- (8) Rock Riffles. Rock riffle structures are low-head weir structures constructed over the streambed from bank to bank. Constructed rock riffles are used to stabilize the streambed where downcutting erosion is occurring. Rock riffles will be built of well-graded riprap rock with an upper weight limit of 650 pounds to 1000 pounds. The largest individual stones will be sorted from the stockpiled rock to be placed as emergent boulders and crest stone. The crest of the riffle will be "V" shaped on the centerline of the structure. From the crest, the downstream slope will be no steeper than 20H:1V, and the upstream slope will be no steeper than 4H:1V. Riffle structures will be keyed into the streambed and bank using riprap rock. Bed keys will be constructed from bank to bank with a minimum depth of 2 feet and a minimum width of 4 feet. Bank keys will be constructed, into both banks, with a minimum depth of 5 feet and a minimum width of 4 feet, extending upward on a 1.5h to 1v slope toward the top of bank. Rock riffles shall be constructed to design standards of the U.S. Department of Agriculture, Natural Resources Conservation Service. The construction of rock riffles is not to be authorized under this regional permit on the Mississippi River or on the Illinois River.

Identification and Characterization of the Affected Water Body.

The Regional Permit No. 16 may be applied to those water bodies within the boundaries of the Corps of Engineer Rock Island District, St. Louis District, Louisville District and Memphis District. These water bodies are General Use waters within the State of Illinois.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

Activities that would be authorized under the proposed permit may result in short-term, minor impacts to the waterbody. They are unlikely to result in a change in the existing uses of a water body.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. Erosion control measures will be utilized to minimize any increase in suspended solids. Aquatic life uses in the affected streams may be negatively impacted, but in time, they will recover and support approximately the same community structure as is now found in the existing streams.

Purpose and Social & Economic Benefits of the Proposed Activity.

Projects authorized under the proposed permit will provide the community with stabilized banks and shorelines on these water bodies.

Assessment of Alternatives for Less Increase in Loading or Minimal Environment Degradation.

The assessment of the activities allowed under this permit finds that the general and special conditions and limitations as defined by the proposed permit with the inclusion of the following condition in the 401 water quality certification would assure that the projects would be completed in a manner that minimized environmental degradation:

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the assessment was written. We tentatively find that the Regional Permit 16 proposed for general 401 Water Quality Certification, with applicable special conditions, would have minimal individual and cumulative impacts on the aquatic resources within the State of Illinois. These activities are therefore compliant with the Antidegradation standard and no further evaluation under 35 Ill. Adm. Code 302.105 (Antidegradation standard) will be required. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.