IEPA Log No.: **C-0409-11**
CoE appl. #: **2011-474**

Public Notice Beginning Date: **October 3, 2013**
Public Notice Ending Date: **October 24, 2013**

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
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: U.S. Army Corps of Engineers, St. Louis District, 1222 Spruce Street, St. Louis, Missouri 63103-2833

Discharge Location: Along the Wood River levee system between approximate Mississippi River miles 195 and 203 in Madison County.

Name of Receiving Water: Unnamed Wetlands

Project Description: Levee improvements in the Wood River Drainage and Levee District.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with an application received from 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 project 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 application, 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 Thaddeus Faught at 217/782-3362.

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Fact Sheet for Antidegradation Assessment
U.S. Army Corps of Engineers, St. Louis District – Unnamed Wetlands – Madison County
IEPA Log No. C-0409-11
COE Log No. 2011-474
Contact: Brian Koch (217) 558-2012
October 3, 2013

The U.S. Army Corps of Engineers, St. Louis District ("Corps" or "Applicant") has applied for a 401 water quality certification for permanent wetland impacts associated with proposed levee improvements to the Wood River levee system. The project purpose is to restore the levee system to a level of protection capable of withstanding a 500-year flood by controlling underseepage of groundwater and relieving excessive hydrostatic pressures beneath the levee system during flood conditions. The levee system is located in Madison County adjacent to the Mississippi River between River Miles (RM) 195 and 203 and consists of three separate standalone levees; the Upper, Lower, and East-West Forks Wood River Drainage and Levee Districts. The Upper Wood River District originates near the Intersection of Langdon and Front Streets (US Highway 67) in Alton, Illinois, and extends downstream to Wood River Creek (1,641 acres of Mississippi River floodplain protection). The Lower Wood River District originates at the West Fork of Wood River Creek near Powder Mill Road in East Alton, Illinois, and extends downstream to the mouth of the Cahokia Creek Diversion Channel at RM 195 (10,687 acres of Mississippi River floodplain protection). The East-West Forks portion of the District occurs on the north side of the East and West Forks of the Wood River (428 acres of Mississippi River floodplain protection).

Completion of the project would permanently remove 2.6 acres of emergent wetlands and 0.3 acres of forested wetlands due to the installation of berms, relief wells, cutoff walls, and temporary access easements. These unavoidable impacts would be offset by compensatory mitigation to be conducted in the Brushy Lake area, near Horseshoe Lake State Park, in Madison County, Illinois. The Brushy Lake area is part of an old meander scar of the Mississippi River. The specific parcel being proposed for mitigation is situated landside of the levee. Mitigation would follow that specified in the Applicant's document entitled "Mitigation Plan for IEPA 401 Certification Application" and would be completed in collaboration with mitigation for wetland impacts associated with an additional levee project proposed by the Applicant in the Metro East Sanitary District (IEPA Log No. C-0446-10). The Wood River Drainage and Levee District and Metro East Sanitary District would be responsible for maintaining and protecting lands contained within the mitigation site in perpetuity. In regards to the impacts proposed in the Wood River Levee District, the Applicant is proposing to mitigate the 2.6 acres of emergent wetland impacts at a 1.7:1 ratio (mitigation commitment of 4.5 acres) and the 0.3 acres of forested wetland impacts at a 3:1 ratio (mitigation commitment of 0.9 acres). Native containerized Root Production Method bottomland trees and native emergent wetland species would be planted at the mitigation site. Fifty trees per acre would be planted with pecan, green ash, sugar berry, hackberry, river birch and box elder trees, and emergent vegetation would consist of a variety of at least 15 different native plant species. A five year monitoring period would commence the year after the wetlands are planted. In the event that performance standards are not met, annual monitoring would continue until ecological success is achieved.

Identification and Characterization of the Affected Water Body.

The unnamed wetlands within the project site have zero 7Q10 flow and are General Use waters. The waters have not been assessed under the Agency's 305(b)/303(d) program and have not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The water bodies are not enhanced in regards to the dissolved oxygen water quality standard.

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

The installation of relief structures would allow for upward flow of groundwater to relieve excessive hydrostatic pressures beneath the levee system during flood conditions. Flow from relief structures would be short-term and temporary and would be comprised of the same groundwater that currently has the potential to uncontrollably seep in a destructive manner. Construction activities would likely result in increases of suspended solids to the impacted wetland areas. These potential impacts would be minimized to the greatest practical extent through implementation of a site-specific storm water pollution prevention plan and best management practices. Permanent fill activities would remove the aquatic life uses of filled wetland areas, but these impacts would be offset with wetland mitigation. Temporarily impacted wetland areas would be restored to pre-project conditions following construction and should support the same community structure currently found. If it becomes necessary to pump out groundwater or precipitation that fills cutoff wall excavations or relief well holes during construction, proper environmental protocols would be followed (e.g., any contaminated water would be tested and treated/properly disposed of if conditions warrant).

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids would be local and temporary. Erosion control measures would be utilized to minimize any increase in suspended solids and prevent further impact to the water bodies. Loss of aquatic life uses in the waters to be permanently filled would be offset with wetland mitigation.

Purpose and Social & Economic Benefits of the Proposed Activity.

The project purpose is to restore the levee system to a level of protection capable of withstanding a 500-year flood by controlling underseepage of groundwater and relieving excessive hydrostatic pressures beneath the levee system during flood conditions. These improvements would also aid in restoring the levee system to attain FEMA accreditation in accordance with federal criteria, which requires protection from the base flood (100-year flood) shown on Flood Rate Insurance Maps. The potential social and economic impact of the levees losing accreditation would be substantial. Levee de-accreditation would trigger massive cost increases in flood insurance rates to individuals and businesses and potentially harm economic growth and investment in the region. Should the levee improvements not be made, high river levels would force groundwater to flow naturally as uncontrolled seepage throughout and along the landward side of the levee systems into low-lying areas such as wetlands, sloughs, and drainage channels. Uncontrolled seepage would have the potential to infiltrate and erode permeable areas of the levees and create sandboils, which would compromise the structural integrity of the levee systems. If the levee system failed, the population affected by the flooding is estimated at over 200,000 people, along with 12,700 acres of industrial and commercial businesses. The potential social and economic impact of levee disrepair could be substantial.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

All practicable steps have been taken to avoid minimize impacts to wetlands while still meeting the project goals. An assessment of alternatives for the proposed project was provided in the August 2011 Environmental Assessment prepared by the Corps. A “no action” and an “action” alternative consisting of individual or a combination of measures were developed for each levee area requiring underseepage control.
No Action Alternative: This alternative would result in no action being taken to correct the deficiencies required to bring the levees to the authorized (approximately 500-year flood event) level of protection. As previously described, the social and economic impact of levees losing FEMA accreditation would be substantial. Additionally, the no action alternative would compromise the effectiveness and safety of the current levee systems and could jeopardize public safety. No action is

not a viable alternative given the social, economic, and catastrophic public safety ramifications that could result in the absence of proceeding with the project.
Proposed Action Alternative: Solutions were selected, where needed, to match the requirements identified to meet the authorized level of protection. Alternative plans were considered for each levee reach by identifying the suitability of specific control measures (e.g., relief wells, seepages berms, cutoff walls) at each location. At most locations, use of seepage berms (and associated filling of wetlands) was unnecessary as other control measures were deemed appropriate to meet the project goals. In the few locations where seepage berms were required to meet the project goals, the Corps found these impacts to be minimal and non-significant.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.

The IDNR EcoCAT system was consulted and it was immediately determined that protected resources may be in the vicinity of the project location. The department evaluated this information and concluded that adverse effects are unlikely. Consultation was terminated September 26, 2013.

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 proposed activity would result in the attainment of water quality standards; that all existing uses of the wetlands would be maintained or mitigated; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity would provide social and economic benefits to the community at large by preventing flooding. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.