

**Illinois Environmental Protection Agency  
Bureau of Water, Permit Section  
(IEPA)**

1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276, 217/782-3362

The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

**Public Notice Beginning Date:**

Thursday, July 25, 2024

**Public Notice Ending Date:**

Wednesday, August 14, 2024

**Agency Log No.: C-0054-24**

**Federal Permit Information:** This civil works project is under the jurisdiction of St. Louis District, Regulatory Branch U.S. Army Corps of Engineers

**Name and Address of Discharger:** U.S Army Corps of Engineers, Benjamin A, Greeling - 1222 Spruce Street, St. Louis, MO 63103

**Discharge Location:** In Section 35 of Township 13-North and Range 5-East of the East 3rd Principal Meridian in Moultrie County. Additional project location information includes the following: Lake Shelbyville, Moultrie County, IL, in the vicinity of Sullivan Marina, from Whitley Creek Recreation Area to the Strickland Boat Ramp, Sullivan, IL 61951

**Name of Receiving Water:** Lake Shelbyville, Kaskaskia River

**Project Name/Description:** Lake Shelbyville Dredge Project - proposed dredging from the Whitley Creek Recreation Area to the Strickland Boat Ramp

**Construction Schedule:** Immediate (Planned project duration is approximately 242 days)

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters must provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as "any other appropriate requirement of State [or tribal] law". Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, unless the IEPA grants an extended notice period. The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA's antidegradation assessment.

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 see the contact information below.

Name: Oyetunde Tinuoye

Email: Oyetunde.Tinuoye@illinois.gov

Phone: 217/782-3362

Post Document. No. C-0054-24-07252024-PublicNoticeAndFactSheet.pdf

The United States Corps of Engineers (applicant) has applied for 401 water quality certification for maintenance dredging of Lake Shelbyville from the Whitley Creek Recreation Area to the Strickland Boat Ramp. The dredging activities would increase the depth for safe recreational boating by removing approximately 1,890,000 Cubic Yards (CY) of gravel, sand, and silt, and placing the dredged materials in eight predefined upland placement areas. The project area is located in Township 13 North, Range 5 East, Section 35, in Moultrie County, Illinois.

Sediment deposition into the Whitley area of Lake Shelbyville is beginning to impact recreation and infrastructure including boat access, boat ramps, and the Sullivan Marina. The local Sullivan Marina owners account that they have experienced six feet of sedimentation since being established in the early 1970's. This has resulted in reduced access to the marina in areas that were previously accessible. No previous dredging in this area has occurred. Material will be removed by use of hydraulic dredge, unless mechanical dredging is needed.

The impacts of this project are expected to be temporary, and because of this, no mitigation is proposed.

Information used in this review was obtained from the application documents dated July 17, 2023 and March 7, 2024.

#### **Identification and Characterization of the Affected Water Body.**

Shelbyville Lake (IL\_ROC) is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. Shelbyville Lake, Waterbody Segment, IL\_ROC, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aesthetic quality with potential causes given as total phosphorus and total suspended solids (TSS), and fish consumption with a potential cause given as mercury. Aquatic life use is fully supported. Shelbyville Lake is not subject to enhanced dissolved oxygen standards.

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

Dredge materials are estimated to be approximately 67,859 CY of sand and 1,821,141 CY of silt/clay fines for a total of 1,890,000 CY. Placement areas (8 in total) have been predetermined by USACE and the proposed project would require the clearing of approximately 14 acres of trees. It is anticipated that the construction of dredge disposal areas will have no significant impacts to local water quality.

Pollutant load increases that would occur from this project include some increases in suspended solids during the dredging of the spoil material. Resuspension of the sediment also affects turbidity and dissolved oxygen levels. These effects of the cutterhead dredge are expected to be temporary and localized to the immediate dredge cutting area. The benthic habitat to be dredged will be disturbed but should revert to its previous condition of aquatic life support soon after dredging.

Dredged materials are discharged into predefined upland placement areas adjacent to the dredge cuts. Over 86% of the pre-dredge sediment material sampled by CEMVS is classified as fines. Silts and clays can be prevalent in this location due to the proximity to the major inflows and general lack of movement.

Concentrations of Chromium (VI) and Iron (dissolved) were greater than the criteria; however, with a 24-hour settling time the impacts are anticipated to be temporary and insignificant as detection would be temporary and settling time can be increased as needed. Lead was the only metal to exceed the criteria during the 4 hour elutriate tests. Total phosphorus (TP) exceeded 4 and 24 hour elutriate tests, but this was expected due to the TP impairment in Lake Shelbyville. Due to the existing TP impairment in the lake, no further degradation is expected as a result of the proposed project.

Total Ammonia Nitrogen (TAN) concentrations exceeded the water quality criteria in both the 4 and 24 hour elutriate tests with an upward trend. The 24 hour elutriate average is over 40 times greater as compared to historical and local ambient TAN. If no other measures are incorporated, the return water released after a 24-hour settling time may

negatively impact the water quality in the immediate location of the return water. Return water will be monitored to ensure water quality standards are met.

Mixing zones may apply and may be established per 35 Ill. Adm. Code 302.102 for Cr(VI), Fe(diss), and TAN. Should parameters of concern exceed the levels identified in this water quality certification, the contractor may consider the following project adjustments (including, but not limited to): decreasing hourly discharge, increasing settling time in the disposal areas, and introduction of a flocculant to bind suspended particles and shorten settling time.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

The increase in suspended solids from actions of the cutterhead dredge are expected to be localized to the immediate dredge cut area and temporary. It is anticipated that dredge material will be moved from the dredge cut to the placement area via hydraulic pipeline. The placement areas will be constructed for confinement and have some form of controlled return water release point. The applicable Illinois State water quality standards apply to the return water.

Dredge material management and disposal are guided by EPA-823-B-98-004: *Evaluation of Dredged Material Proposed for Discharge Into Waters of the United States-Testing Manual* and EM 1110-2-5025: *Dredging and Dredged Material Management*.

Specific actions include sediment collection and analysis of bed material prior to a dredging event. A grain size analysis is performed to determine the percentage of gravel (>2.0mm), sand (0.05 – 2mm), and fine (<0.05mm) material. When greater than 20% of a sediment sample is classified as fine material, sediments were classified as potentially contaminated, and elutriate samples were prepared from the respective sample.

An operation and management plan (OMP) will address best management practices to ensure no negative impacts to water quality occur. This will ensure that impacts will stay within water quality criteria and/or (where applicable) background levels normally observed in Lake Shelbyville. BMPs will be used when operating the dredge and managing the dredge placement to minimize impacts. If any parameters exceed water quality standards, the contractor may decrease hourly discharge, increase settling time in disposal areas, and introduce flocculants to bind suspended particles to shorten settling time. Return water from the dredge placement areas will be monitored weekly for Cr (VI), Fe (diss), TSS, TP, TAN and hardness. If laboratory results show exceedances over the water quality criteria or major exceedances over background levels, dredging operations will be stopped and an alteration to the OMP will be made or a different placement area will be used.

A water quality monitoring program will be established to ensure the water quality criteria and appropriate background levels are not exceeded. Weekly grab samples will be collected from return water effluent discharging from all active dredge placement areas for Cr(VI), Fe(diss), TSS, TP, TAN, and hardness. At least one surface (between 1-3') 'upstream' ambient background sample (to represent current non-dredge affected water) will be taken.

The proposed project would require the clearing of approximately 14 acres of trees. Tree clearing would only occur 1 November to 31 March of any year to minimize impacts to federally threatened or endangered bat species.

There are no impacts proposed to wetlands, so no compensatory mitigation is proposed. Additionally, the area would receive recreational benefits as a result of the proposed project.

#### **Purpose and Anticipated Benefits of the Proposed Activity.**

This project will provide additional depth and access near the Sullivan Recreation Area as well as nearby campgrounds and Sullivan Marina. Maintenance dredging will be performed to restore the navigable channel to original depths throughout different locations where sediment accumulation impacts navigable depths for vessels. The project would improve safety as well as improve access for recreational activities within the project area.

Additional benefits include reduced boat propeller and wave wash to the benthic environment, reduction of water turbidity, and reduction of nutrients and metals by removal of sediment thereby reducing available nutrients and metals to aquatic life.

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

The applicant considered the following alternatives:

No Action – While this alternative provides low environmental and cultural impacts with low project and medium O&M costs, it does not restore access for water-based operations and maintenance. Additionally, water quality and visitor safety are not improved. This option was not chosen as it would not be an effective alternative.

Dredging (Preferred Alternative) – Environmental impacts would be low for this alternative. Dredging would require medium estimated project costs, and low annual O&M costs. This alternative would also restore access for water-based O&M, improve water quality, and improve visitor safety. The alternative was determined to be effective and therefore, chosen as the preferred option.

Sediment Trap/Basin – This alternative would provide low to medium environmental and cultural impacts. Estimated project and annual O&M costs would be in the medium range. This alternative improves water quality but would not restore access for water-based O&M or improve visitor safety. This option was determined to be ineffective and therefore, not chosen as the preferred alternative.

Bankline Revetment – This alternative would provide low to medium environmental and cultural impacts. Estimated project costs would be medium and annual O&M costs would low. This alternative would improve water quality but would not restore access for water-based O&M or improve visitor safety. This option was determined to be ineffective and therefore, not chosen as the preferred alternative.

Basin-wide BMPs – The environmental and cultural impacts for this alternative are undetermined as they are off USACE property. Estimated project costs are also undetermined, and the annual O&M would be unable to be implemented as this would be an offsite alternative. This alternative does improve water quality; however, it does not permit continued water-based O&M activities or improve visitor safety. This alternative was determined to be ineffective and therefore, not chosen as the preferred alternative.

Change in Lake Operation – This alternative provides low environmental impacts, with high cultural impacts. Estimated project costs are medium while the annual O&M costs are high. This alternative would not restore access for water-based O&M, improve water quality, or improve visitor safety. This alternative was determined to be ineffective and therefore, not chosen as the preferred alternative.

Relocation of Commercial and Visitor Activities in the Whitney Creek Area – This alternative provides low environmental impacts, with high cultural impacts. Estimated project costs are high with medium annual O&M costs. This alternative would not restore access for water-based O&M, improve water quality or visitor safety as this will not stop attempted access in the area. This alternative was determined to be ineffective and therefore, not chosen as the preferred alternative.

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

A draft Environmental assessment (EA) with Finding of No Significant Impact (FONSI) was drafted by the USACE for this project. The draft EA evaluated the environmental, cultural, and social effects of the proposed project and found no significant impacts. Significant factors included:

- Recreation resources would accrue benefits as a result of the project.
- Approximately 14 Ac of trees would be required to be cleared with tree clearing only occurring November 1 through March 31 to minimize impacts to federally threatened or endangered bat species.

- The proposed project would have no adverse impact on archaeological remains or historic properties.
- The proposed project would have no adverse impacts to the physical environment (i.e., noise, air, and water quality).
- Proposed dredging would not adversely impact low-income or minority populations.
- Wetlands will be avoided within the project area, and therefore have no adverse impacts.

An EcoCAT consultation (Project # 2317798) was initiated on June 29, 2023. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. On July 17, 2023, the Department evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

The consultation also states the following: “However, any areas proposed for tree removal should be surveyed for Osprey nests. If nests sites are identified, further coordination with the Department will be required. All trees should be removed between I between November 1st and March 31st to avoid impacts to any State-listed bats.”

A USFWS Section 7 Consultation was initiated on April 4, 2024, to provide a potential list of threatened and endangered species that may be in the proposed project area or may be affected by the proposed project.

When it comes to fish and wildlife resources, the Service has no objections to the proposed project; however, it was recommended that tree clearing be avoided or minimized to reduce any potential impacts to migratory birds and forest bat species. The service also recommended that any tree clearing necessary be offset with forest restoration or tree planting within the project area.

The IPaC system provided a list of potential species present in the proposed project area:

- Indiana bat (*Myotis sodalis*) - Endangered
- Northern long-eared bat (*Myotis septentrionalis*) – Endangered
- Piping plover (*Charadrius melodus*) – Endangered
- Tri-color bat (*Perimyotis subflavus*) – Proposed Endangered
- Whooping Crane (*Grus americana*) – Experimental Population, Non-Essential
- Monarch Butterfly (*Danaus plexippus*) – Candidate

The Service provided the following recommendations:

“Information provided in the draft EA indicates that 14 acres of tree clearing is proposed and will occur outside the April 1 to September 30 time frame, thus you have determined the proposed project may affect, but is not likely to adversely affect the Indiana bat and northern long-eared bat. Based on this information, the Service concurs that the proposed project is not likely to adversely affect the Indiana bat and northern long-eared bat. The proposed measures should also avoid and minimize impacts to the tricolored bat; thus, the Service concurs that the proposed project is not likely to adversely affect the tricolored bat. If the proposed project extends beyond the final listing for the species, reinitiation of consultation may be necessary to confirm that this concurrence is still appropriate. Based on the project description and locations, we concur also concur that the proposed project is not likely to adversely affect the piping plover and is not likely to jeopardize the continued existence of the whooping crane and monarch butterfly. Should this project be modified, or new information indicate listed or proposed species may be affected, consultation or additional coordination with this office, as appropriate, should be initiated. We recommend that any tree clearing be offset or compensated as described above and utilized tree species beneficial to the listed bat species.”

#### **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 this assessment was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; 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 will benefit the community at large by improving safety and access for recreational activities within the project area. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.