US Army Corps of Engineers ®
Memphis District

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PUBLIC NOTICE

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PUBLIC NOTICE
U.S. ARMY CORPS OF ENGINEERS

Availability of Draft Integrated Feasibility Study Report and Draft Environmental Assessment (DIFR-DEA), and Draft Finding of No Significant Impact (FONSI)

REPLY TO:
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TITLE: MEMPHIS LIGHT, GAS, AND WATER (MLGW) TOWER #1613 WOLF RIVER BASIN, SHELBY COUNTY, TENNESSEE INTEGRATED FEASIBILITY REPORT AND ENVIRONMENTAL ASSESSMENT

AUTHORITY: The Continuing Authorities Program (CAP) program consists of a group of nine legislative authorities under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design, and implement certain types of water resources projects without additional project specific congressional authorization. The Study was authorized under Section 14 of the Flood Control Act of 1946, dated July 24, 1946, Public Law 79-526, as amended.

The CAP Section 14 authority allows USACE to study, design, and construct emergency shoreline and stream bank protection works in the interest of protecting public facilities such as utilities, bridges, roads, public buildings, sewage treatment plants, water wells, and non-profit public facilities such as churches, hospitals, and schools. Privately owned property and facilities are not eligible for protection under this authority.

The maximum Federal expenditure at any one site was expanded to $10 million in WRDA 2022 Sec. 8138. The project must be economically justified and environmentally sound.

This study will recommend a plan to stabilize the eroding bank in order to protect the essential utility services provided by this tower, thus meeting the intention of the CAP Section 14 authority.

LOCATION: The MLGW Tower #1613 is located on the right descending bank of the Wolf River northeast of the City of Memphis, Tennessee. The Wolf River is a tributary to the Mississippi River with a confluence at Mississippi River river mile 739. The location of Tower #1613 relative to the Wolf River, the City of Memphis, and the Mississippi River is shown below in Figure 1.

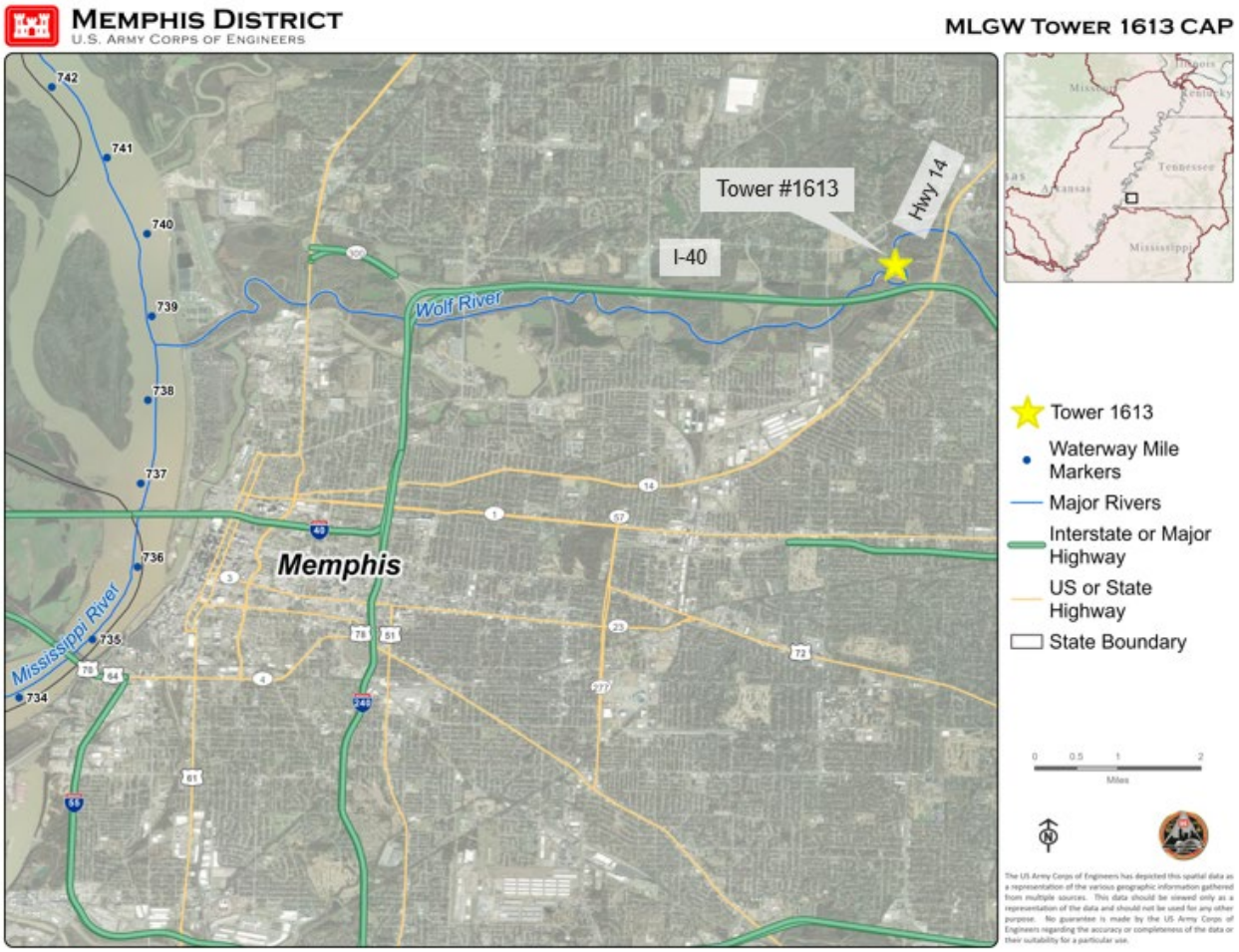

Figure 1. General Study Area

The tower is situated at Wolf River river mile 9.1 between North Highland Street to the west, Jackson Avenue to the east, and Interstate 40 to the south. The tower is located on the right descending bank as shown in Figure 2 below. The project area is a 300-foot-long reach along the Wolf River at this location, directly in front of Tower #1613.

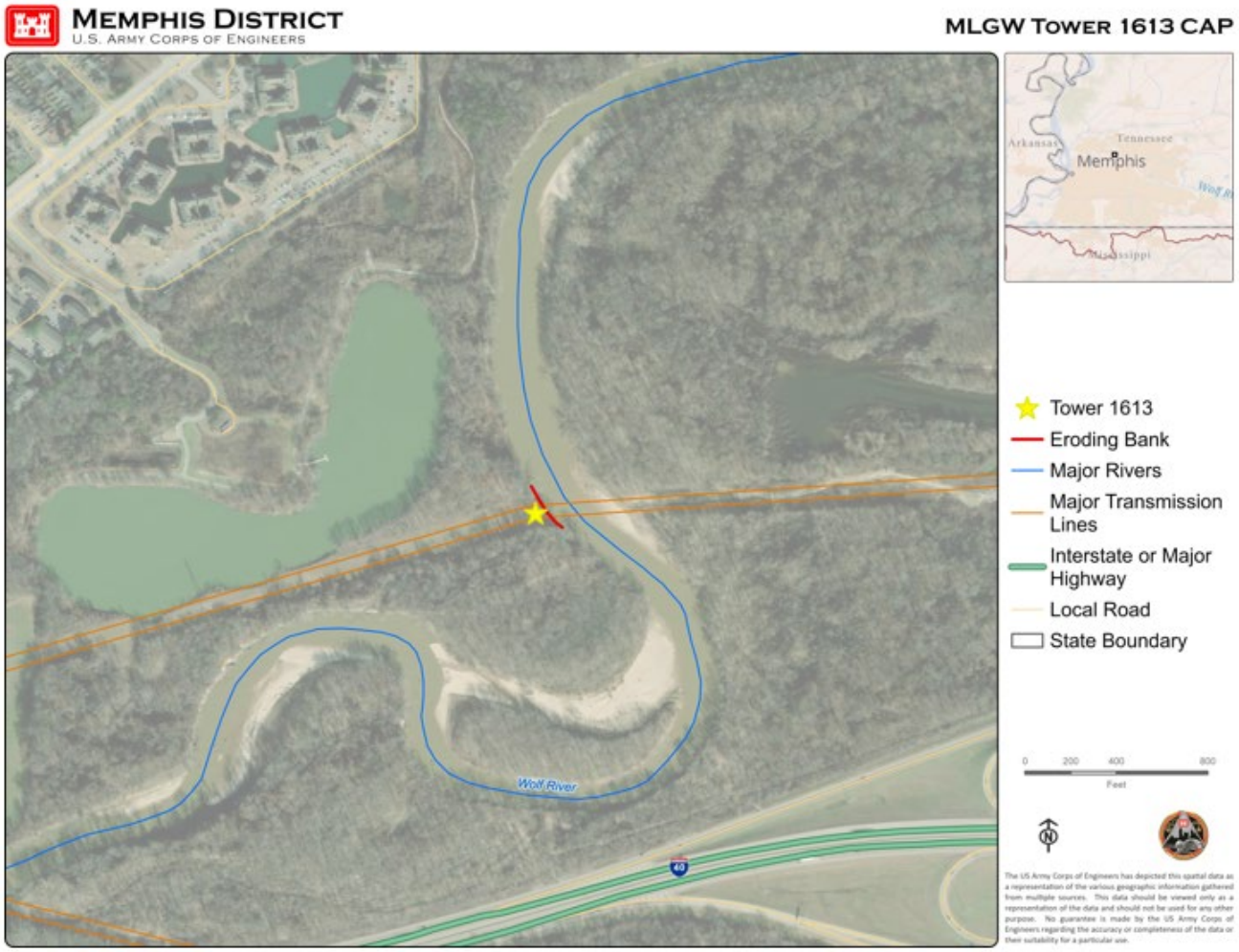

Figure 2. Specific Study Area of MLGW Tower 1613 located in Memphis, TN

PURPOSE: The purpose of this Draft Integrated Feasibility Report and Draft Environmental Assessment (DIFR-DEA)is to formulate a plan to stabilize the right descending riverbank of the Wolf River at River Mile 9.1, and to evaluate the potential effects of such action. This report provides planning, engineering, and preliminary construction details of the Tentatively Selected Plan (TSP). If the TSP is approved, final design and construction will proceed after receipt of appropriated funds for design and construction phases.

Following the USACE 6-step SMART (Specific, Measurable, Attainable, Risk Informed, Timely) planning process, this report uses documented existing conditions, future without project conditions, and future with-project conditions; assesses the problem; provides and compares alternatives; and makes a recommendation to accomplish the emergency streambank protection (Policy and Procedure for Implementing NEPA) to protect the essential utility services provided by Tower #1613 to the City of Memphis, Tennessee.

Without bank stabilization, Tower #1613 could collapse into the Wolf River, disrupting utility services to the City of Memphis, Tennessee.

ALTERNATIVES: Five alternatives were initially evaluated. The alternatives included a No Action Alternative and four different combinations of protection techniques. For the purposes of NEPA, the no-action alternative serves as the baseline against which impacts and benefits of the action alternatives are evaluated. Selecting the tentatively selected plan (TSP) requires identification of the alternative that maximizes benefits over multiple benefit categories in National Economic Development - NED, Environmental Quality - EQ, Regional Economic Development - RED, and Other Social Effects – OSE, along with meeting planning objectives and constraints and reasonably maximizing environmental benefits. The TSP must also pass the test of cost effectiveness and incremental cost analyses, significance of outputs, completeness, effectiveness, efficiency, and acceptability. Only alternatives that were practical in terms of the engineering, economic, environmental, and social impacts were developed and included the measures carried forward in the planning process.

Alternative 1 (No Action Alternative): The No Action Alternative is the future without project condition if no plan is authorized. Under the No Action Alternative. No action would be taken by USACE to stabilize the streambank and erosion would continue. This alternative would require the Non-Federal Sponsor (MLGW) to relocate the tower approximately 100 feet to the west of its current location, in-line with the adjacent existing towers. Expected actions would include the installation of four new concrete drilled pier foundations and obtaining approximately 1 acre in real estate easements since this tower sits at a line angle.

A rental crane and a 3,740 linear feet long access road would also be required for this work to be performed.

Alternative 2: This alternative would require the installation of 300 linear feet of R-200 riprap along the streambank to protect the bank from further eroding towards the tower.

Alternative 2 consists of placing a minimum of 6-inches of bedding stone and a minimum of 24-inch R-200 riprap to develop a 3.5H:1V slope from the existing top of bank (TOB). Riprap would extend beyond the TOB by 5-feet. Improved toe protection would be provided at 12-foot length and 4-foot depth.

Additionally, Type E end protection would be placed at the upstream and downstream ends of the bank stabilization to help prevent scour and flanking of the riprap.

The excess riprap and partially embedded toe protection create a riprap armor with self-healing properties. This design is commonly used in this area and has been proven as a long-lasting armor with scour protection and virtually no maintenance needs.

Alternative 3: Building on Alternative 2, this risk-informed alternative includes the same riprap armor described above but Alternative 3 would also add a trench revetment in a “u-shape” behind the tower to mitigate the low risk of future riprap flanking or river avulsion.

As described in Alternative 2, the 300 linear feet of riprap would be placed on a 3.5H:1V slope with 6-inches of bedding stone, partially embedded toe protection, and Type-E end protection with self-healing properties to protect the bank from further eroding towards the tower.

The u-shaped trench revetment around the tower would launch during the unlikely event of riprap flanking or river avulsion. The riprap trench revetment is also designed with self-healing properties.

Alternative 4: Building on Alternative 2, this alternative includes the same riprap armor described above but Alternative 4 would also include 12-inches of topsoil seeded with native vegetation.

As described in Alternative 2, the 300 linear feet of riprap would be placed on a 3.5H:1V slope with 6-inches of bedding stone, partially embedded toe protection, and Type-E end protection with self-healing properties to protect the bank from further eroding towards the tower.

The voids on the riprap slope would be backfilled with local soils and low-growth native vegetation. This nature-based feature is intended to mimic the local bank habitat conditions as closely as reasonable per the guidance of WRDA 2016 section 1184. A 12-inch-deep layer of local soil would begin 5 feet from the existing TOB and be placed down to the water surface elevation at the time of construction. In this case, water elevation will likely cause variation in soil quantity.

Alternative 5: This alternative includes the same riprap armor described above in Alternative 2, the trench revetment described in Alternative 3, and the 12-inch seeded topsoil described in Alternative 4.

As described in Alternative 2, the 300 linear feet of riprap would be placed on a 3.5H:1V slope with 6-inches of bedding stone, partially embedded toe protection, and Type-E end protection with self-healing properties to protect the bank from further eroding towards the tower.

The voids on the riprap slope would be backfilled with 12-inch-deep local soils and seeded with low-growth native vegetation.

The trench revetment would be placed in a u-shape around the back of the tower to mitigate the low risk of future riprap flanking or river avulsion.

The trench revetment Alternatives (Alternatives 3 and 5) were screened based on efficiency according to the Planning and Guidance criteria. The trench revetment feature was intended to mitigate for a low-likelihood hypothetical riprap flanking or stream avulsion to an adjacent lake. Because there is no imminent evidence of an avulsion or the river changing course, there is no current threat to the back side of the tower from erosion or scour. Alternatives 3 and 5 therefore do not meet the intent of the authority to address an imminent threat. Alternatives 3 and 5 are also not the least cost alternatives and are therefore not efficient according to Planning and Guidance criteria. The trench revetment feature (Alternatives 3 and 5) was therefore screened out.

The alternatives that were carried forward include Alternative 1 – *MLGW Relocate Tower*, Alternative 2 – *Riprap Armor*, and Alternative 4 – *Riprap Armor with 12-inch Seeded Topsoil*.

After reviewing the evaluation and comparison of the final array of alternatives, Alternative 2 – *Riprap Armor* was the least cost alternative and had the highest excess benefits. Alternative 4 was excluded after the Project Delivery Team concluded that potential long term bank monitoring and maintenance difficulties could arise if the riprap was obscured by vegetation and soil. The no action alternative would have no financial cost to the federal government but would result in a decrease in habitat functions and values over the study period. The no action alternative was not selected since the study produced best buy plans that addressed study area problems, opportunities, objectives, and technically significant habitat within the study area.

DESCRIPTION OF WORK: The proposed work would require the installation of 300 linear feet of R-200 riprap along the streambank to protect the bank from further eroding towards the tower. A minimum of 6-inches of bedding stone and a minimum of 24-inch R-200 riprap to develop a 3.5H:1V slope from the existing TOB. Riprap would extend beyond the TOB by 5-feet. Improved toe protection would be provided at 12-foot length and 4-foot depth. Additionally, Type E end protection would be placed at the upstream and downstream ends of the bank stabilization to help prevent scour and flanking of the riprap.

WATER QUALITY CERTIFICATION: An Aquatic Resources Alteration Permit Water quality certification was obtained from the Tennessee Department of Environment and Conservation (ARAP – NR 2005.024). All conditions of the water quality certification will be implemented in order to minimize adverse impacts to water quality.

SECTION 404 OF THE CLEAN WATER ACT AND SECTION 10 OF THE RIVERS AND HARBOR ACT: The impact of the activity on the public interest is being evaluated in accordance with the Environmental Protection Agency guidelines pursuant to Section 404(b)(1) of the Clean Water Act and Section 10 of the Rivers and Harbor Act. The proposed action meets condition of Nationwide Permit 13 – Bank Stabilization.

THREATENED AND ENDANGERED SPECIES: The U.S. Fish and Wildlife Service (USFWS) provided a list of threatened, endangered, proposed and candidate species that may occur within the boundaries of the study area and/or may be affected by the proposed project. The list of species is shown in Table 1.

Table 1. List of federally threatened, endangered, proposed threatened, proposed endangered, and candidate species in the study area.

Species (Common Name)	**Scientific Name**	**Status**
Monarch Butterfly	*Danaus plexippus*	Candidate
Alligator Snapping Turtle	*Macrochelys temminckii*	Proposed Threatened
Tricolored Bat	*Perimyotis subflavus*	Proposed Endangered

The proposed measures were formulated to protect critical infrastructure along the lower Wolf River habitat. However, there is the potential for some minor temporary impacts to listed species and/or their habitats, such as minimal tree clearing for access and temporary aquatic disturbances during construction. Thus, the effects determination for the TSP is a may affect but not likely to

adversely affect (NLAA) determination for listed species or their designated habitat. The USFWS concurred with the USACE determinations on 19 November 2024.

CULTURAL RESOURCES: Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that no historic properties are anticipated to be affected by the tentatively selected plan. The Corps received concurrence form the Tennessee State Historic Perseveration Office on 03 June 2024. Concurrence was also received by the Absentee Shawnee Tribe of Oklahoma (22 May 2024), the Quapaw Nation (02 July 2024), and the Choctaw Nation of Oklahoma (30 July 2024). All terms and conditions resulting from the agreements shall be implemented in order to minimize adverse impacts to historic properties.

PUBLIC INTEREST REVIEW: The purpose of this public notice is to advise all interested parties of the completed activities and to solicit comments and information necessary to evaluate the impact on the public interest. This notice is being circulated to federal, state and local agencies and to the public.

The decision to proceed with this project was based on an evaluation of the probable impact, including cumulative impacts, of the activity on the public interest. That decision reflects the national concern for both protection and utilization of important resources. The potential benefits that reasonably may be expected to accrue from the activity must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the activity were considered, including the cumulative effects thereof; among those were conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; federal, state and local agencies and officials; federally recognized Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Comments will be used in preparation of the final environmental assessment and/or draft environmental impact statement pursuant to the National Environmental Policy Act and are also used to determine the overall public interest of the project. The DIFR-DEA and draft FONSI will be circulated to agencies and any other parties that respond to this notice requesting copies. Copies of these documents have been placed on the Project's website at:

https://www.mvm.usace.army.mil/About/Offices/Regulatory/Public-Notices/

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this proposed project. Requests for a public hearing shall clearly state the reason for holding a public hearing. The District Engineer will determine if the issues raised are substantial and whether a hearing is needed in order to reach a decision on the project. Failure of any agency or individual to comment on this notice will be interpreted to mean that there is no objection to the proposed work.

COMMENTS OR REQUEST FOR ADDITIONAL INFORMATION: If you wish to obtain additional information or to submit comments on this proposal, contact Kevin Pigott at the U.S. Army Corps of Engineers, Environmental Compliance Branch, 167 North Main Street, Room B-202, Memphis, Tennessee 38103-1894, telephone 901-544-4309. **Comments should be forwarded to this office by January 13, 2025.**

Sincerely,

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Mark Smith
Chief, Environmental Compliance Branch,
Regional Planning and Environmental Division South