DRAFT ENVIRONMENTAL ASSESSMENT

U.S. Coast Guard Waterways Commerce Cutter Homeport and Shore Facility Infrastructure
Owensboro, Kentucky

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UNITED STATES COAST GUARD (COAST GUARD) ENVIRONMENTAL ASSESSMENT FOR WCC HOMEPORT AND SHORE FACILITIES IN OWENSBORO, KENTUCKY

This U.S. Coast Guard (USCG) Environmental Assessment (EA) was prepared in accordance with Environmental Planning Policy, Coast Guard Commandant Instruction (COMDTINST) 5090.1 (series) and is in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. §§ 4321 to 4370h) and the Council on Environmental Quality (CEQ) Regulations dated 28 November 1978 (40 C.F.R. §§ 1500–1508). USCG is aware of the November 12, 2024, decision in *Marin Audubon Society v. Federal Aviation Administration*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the CEQ regulations implementing NEPA are not judicially enforceable or binding on this agency action, USCG has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500–1508, in addition to USCG procedures/regulations implementing NEPA at COMDTINST 5090.1, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

This EA serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI). This EA concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This EA also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during EA preparation.

[*Insert date*] Date	[*Place signature*] Colin Fishbaugh Document Preparer[1]	Planner / Architect Title/Position	

I reviewed the EA and submitted my written comments to the Proponent.

[*Insert date*] Date	[*Place signature*] Richard Sprinzl or Charlie Maricic Environmental Reviewer[1]	NEPA Lead Title/Position	Level I Provisional, NEPA Warrant

I reviewed the EA and submitted my written comments to the Proponent.

[*Insert date*] Date	[*Place signature*] Gregory Carpenter, P.G. Senior Environmental Professional	Environmental Chief Title/Position	Level II NEPA Warrant

In reaching my decision/recommendation on the Coast Guard's proposed action, I considered the information contained in this EA and considered and acknowledge the written comments submitted to me from the Environmental Reviewer(s).

[*Insert date*] Date	[*Place signature*] Proponent	[*Insert title/position.*] Title/Position

Note: With the exception of Commandant (CG-BRG) and their field staff, the individual that signs as the Preparer cannot also sign as Environmental Reviewer or Senior Environmental Professional. The Coast Guard Preparer signs for NEPA documents prepared in-house. The Coast Guard environmental project manager signs as Preparer for NEPA documents prepared by an applicant, a contractor, or another outside party. The individual that signs as the Proponent cannot also sign as Environmental Reviewer or Senior Environmental Professional. All signatories must be Coast Guard military or federal employees. Contractors must not sign Coast Guard environmental planning documents.

DRAFT ENVIRONMENTAL ASSESSMENT

WCC Homeport Shore Facilities

Owensboro, Kentucky

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

AJD	Approved Jurisdictional Determination
ANS	Aquatic Nuisance Species
amp	ampre
APE	Area of Potential Effects
ATON	Aid to Navigation
BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COMDTINST	Commandant Instruction
CRS	Congressional Research Service
CWA	Clean Water Act
DA	Department of the Army
DBH	diameter at breast height
DHS	Department of Homeland Security
EA	Environmental Assessment
EDDMapS	Early Detection & Distribution Mapping System
EDR	Environmental Data Resoures, Inc
EEC	Energy and Environment Cabinet
EDIT	Ecological Site Description Tool
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FY	Fiscal Year
GHG	Greenhouse gases
HAPs	hazardous air pollutants
HAPC	Habitat Areas of Particular Concern
ILSP	Integrated Logistics Support Plan
IPAC	Information for Planning and Consultation
IUCN	International Union for Conservation of Nature
IW&WR	Inland Waters and Western Rivers
KDEP	Kentucky Department of Environmental Protection
KDFWR	Kentucky Department of Fish and Wildlife Reesources
KFTC	Kentuckians for the Commonwealth
KGS	Kentucky Geological Survey
KHC	Kentucky Heritage Council
KNPC	Kentucky Nature Preserves Commission
KYEEC	Kentucky Energy and Environment Cabinet
KY-EPPC	Kentucky Exotic Pest Plant Council
MBTA	Migratory Bird Treaty Act
MLRA	Major Land Resource Area
MRLC	Multi-Resolution Land Characteristics Consortium
MTS	Marine Transportation System

NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAPs	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NLCD	National Land Cover Data
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
NWP	Nationwide Permit
ODNR	Ohio Department of Natural Resources
OSA	Office of State Archeology
OSHA	Occupational Safety and Health Administration
OKNP	Office of Kentucky Nature Preserves
OMU	Owensboro Municipal Utilities
PAHs	polycyclic aromatic hydrocarbons
PCBs	Polycholorinated Biphenyls
PEIS	Programmatic Environmental Impact Statement
PSD	Prevention of Significant Deterioration
psf	pounds per square foot
PPE	personal pretective equipment
SHPO	State Historic Preservation Office
Site	USCG SSD Owensboro
SIP	State Implementation Plan
SSD	Shore Side Detachment
SWPPP	storm water pollution prevention plan
TMDL	total maximum daily load
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USCGC	USCG Cutter
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOCs	Volatile organic compounds
WCC	Waterways Commerce Cutter
WLR	River Buoy Tender
WLIC	Inland Construction Tender
WLI	Inland Buoy Tender
WOTUS	Waters of the United States
WRCC	Western Regaional Climate Center

EXECUTIVE SUMMARY

ES. 1 INTRODUCTION AND SCOPE

The U.S. Coast Guard (USCG) is proposing to conduct waterfront improvements to provide a dedicated homeport berth on the Ohio River designed to accommodate an incoming Waterways Commerce Cutter (WCC) River Buoy Tender (WLR) variant at the USCG Shore Side Detachment (SSD) Owensboro (Site) in Owensboro, Kentucky. The existing homeport pier is not compatible with the design and specifications of the incoming WCC WLR variant, especially during low flow conditions. The USCG proposes to expand shore facilities and establish essential infrastructure to support the loading and operational requirements of the new WCC WLR prior to its arrival.

The USCG as the lead agency has prepared this Environmental Assessment (EA) in compliance with National Environmental Policy Act (NEPA) regulations (40 CFR 1501-1508) and associated Department of Homeland Security (DHS) instructions (Instruction 023-01-001-01) (DHS 2014) and USCG Environmental Planning Policy (COMDTINST 5090.1) that govern the USCG's actions. The information and analysis contained in this EA will determine whether implementing the Proposed Action would result in a significant impact to the environment, requiring preparation of an environmental impact statement (EIS), or if no significant impacts would occur and a finding of no significant impact (FONSI) would be appropriate.

This EA evaluates the potential environmental effects of implementing the Proposed Action and reasonable alternatives. In accordance with NEPA and Council on Environmental Quality (CEQ) regulations, this EA considers three action alternatives for implementing the Proposed Action. The No Action Alternative is also evaluated as required by CEQ regulations and COMDTINST 5090.1. Full descriptions of the three alternatives and No Action Alternative are provided in Section 2.2.

ES. 2 BACKGROUND

The USCG's current tender fleet play a vital role in directing traffic of the Nation's Marine Transportation System (MTS) and supporting the U.S. economy by facilitating the efficient flow of goods nationwide. However, the current fleet of inland tenders is in a state of obsolescence, resulting in rising maintenance costs and other sustainment challenges, including hazardous materials stemming from the use of asbestos and lead paint during construction of these assets. Outdated technology and vessel designs have also led to crew safety concerns and noncompliance with environmental regulations. Lastly, vessel configuration does not allow the assignment of mixed gender crews in accordance with the USCG's workforce goals.

The Site currently serves as the dock for the USCG Cutter (USCGC) Obion, hull No. WLR-65503. The main mission of the Obion and its crew is to maintain federal aids to navigation of approximately 600 river miles of the Ohio and Green Rivers. The USCG has determined the current Site is the preferred location for continued WCC Homeport operation in the area. The USCG is slated to receive the newly designed WCC in FY2032, which the current waterfront facility will not accommodate.

ES. 3 PURPOSE AND NEED FOR ACTION

With the Ohio River serving as a significant waterway for interstate commerce in the United States, it is essential that navigational aids are maintained to help guide vessels on the river. The current USCGC Obion has been in service for over 62 years and the USCG is planning to replace it with a new cutter that better meets mission requirements. The low water level at the pier and accumulation of debris at the mooring are hindering safe and efficient operation at the existing homeport.

The need for the Proposed Action is to address insufficient load capacity of the existing pier deck, insufficient water depths at the existing floating mooring, the turning basin in front of SSD Owensboro, debris accumulation at the floating mooring, and the vessel berth area at the pier and floating mooring. As the only USCG SSD in the area, waterfront facilities need to be accessible by the USCG vessel and have the appropriate facilities to meet USCG mission requirements and quickly and effectively respond to emergencies. The Owensboro homeport improvements would ensure facilities provide a viable Final Operating Capability for cutter operations.

ES.4 PROPOSED ACTION

The Proposed Action would consist of the following primary components:

1) Replace the deck of the existing pier with a deck rated for a higher load capacity (400 pounds per square foot (psf) versus the existing 150 psf).
2) Widen the new deck to 20 feet for most of the pier and then to 25 feet at the end to allow for utilities. The 20-foot-wide section would either be striped as a fire lane or the pier would be widened to accommodate a dedicated fire lane.
3) Replace the existing floating dock (mooring) with a longer (200 feet total) and wider (23 feet total) floating dock to accommodate the new WCC WLR variant.
4) Replace the existing debris deflector with a more substantial debris deflector.
5) Upgrade shore-side cutter utilities (sewer, water, and electrical).
6) Extend a 6-inch fire line from the existing fire hydrant located southwest of the shore side end of the pier to the channel side end of the pier.

The USCG would also perform maintenance dredging in the vessel berth area. Much of the Proposed Action would be conducted from the water via barges/vessels.

ES.4.1 ACTION ALTERNATIVES

Each of the three action alternatives analyzed under the Proposed Action would include waterfront infrastructure replacements and utility upgrades, as described below.

Alternative 1

Alternative 1 includes demolishing and reconstructing the pier components above the pile caps and widening the pier deck 5 feet which would require 4 additional piles. Alternative 1 also includes re-positioning a longer and wider floating dock with additional mooring piles as described above. To address the drift accumulation issue, a structural debris barrier would be constructed upstream of the mooring. Six steel sheet pile cofferdams, 10-12 feet in diameter and approximately 30 feet on center, would be driven into the riverbed and filled with rock. Floating debris would be intercepted by an open, structural steel barrier installed between the cofferdams and extending approximately 5 feet below the mean pool elevation of 358 feet. This configuration would intercept debris but allow flow through the area to prevent excessive siltation. A braced sheet pile closure wall would be constructed between the nearest shore side cofferdam and riverbank to prevent the flow of drift along the shoreline. Hazard beacons would be located on the cofferdams to comply with USACE requirements. Drift accumulation would be significantly reduced in the Project Area, lessening the need for physical removal of material. This debris deflector design would likely require little to no maintenance for 30 years.

The revised mooring location would help meet the water depth requirement of 10 to 12 feet for the new cutter; however, reductions in mooring depth may occur due to sediment deposits and debris accumulation beneath the cutter. Under this alternative, periodic maintenance dredging would be required every 5 years at the vessel berth area to address sediment deposits.

Electrical load requirements would be met by the installation of a new transformer, metering installation, and main distribution panel on the shore along 400- and 100- ampere (amp) Power Mound receptacles located on the pier. Shore tie power conductors would be provided for ship to shore power connections.

Alternative 2

Alternative 2 (**Appendix C, Plate 2**) was developed to address both the drift and dredging issues. Alternative 2 is similar to Alternative 1 with the exception that the pier would be extended 25 feet to provide additional mooring depth, precast concrete beams would be used for pier construction in lieu of weathering steel, and floating debris would be intercepted by a heavy-duty debris boom/barrier. Implementation of Alternative 2 would eliminate dredging and decrease routine maintenance costs. Under Alternative 2, the bottom elevations at the revised mooring location range from 342.0 feet at the stern and 346.0 feet at the bow along the shore side and 332.0 to 340.0 feet on the channel side. These depths meet objective requirements eliminating immediate concerns regarding maintenance dredging. Implementation of Alternative 2 would require new mooring piles and extension of the utilities to accommodate the longer pier deck. The debris deflector under Alternative 2 would consist of six sheet pile cofferdams anchoring a heavy-duty floating debris barrier. This configuration would intercept debris but allow flow through the area to prevent excessive siltation. A braced sheet pile closure wall would be constructed between the nearest shore side cofferdam and riverbank to prevent the flow of drift along the shoreline. Hazard beacons would be located on the cofferdams to comply with USACE requirements. Drift accumulation would be significantly reduced in the Project Area, reducing the need for physical removal of material. This debris deflector design would likely require little to no maintenance, though it may need to be replaced every 15 years.

Electrical load requirements would be met as described under Alternative 1.

Alternative 3

Alternative 3 is similar to Alternative 1 with two exceptions. Floating debris would be intercepted by a heavy-duty floating debris barrier anchored between six cofferdams, similar to the debris deflector under Alternative 2. Also under Alternative 3, the pier would be widened 20 feet for a total width of 36 to 40 feet to provide a dedicated fire lane rather than striping the 20-foot pier as a fire lane. This widened pier requires six additional piles. As in Alternative 1, periodic maintenance dredging at the vessel berth area would likely be required every 5 years. As in Alternative 2, the debris deflector design would likely require little to no maintenance, though it may need to be replaced every 15 years.

ES.4.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, the Owensboro homeport improvements would not occur, and existing facilities would not be able to provide a viable Final Operating Capability for cutter operations. Indefinite use of existing facilities would continue with only routine repair and maintenance provided. The low water level at the pier and accumulation of debris at the mooring would continue to hinder safe and efficient operation. Maintenance dredging would occur approximately every 2 years to provide a safe and adequate vessel berth area and navigation.

ES.5 AGENCY CONSULTATIONS AND PUBLIC INVOLVEMENT

Pursuant to the requirement of NEPA (40 CFR 1506.6), this EA is subject to public involvement. Agencies, organizations, Tribal members, and members of the public with a potential interest in the Proposed Action will be invited and encouraged to participate. The USCG will publish and distribute this Draft EA for a 30-day public review and comment period, which will be announced by a Notice of Availability published in the Owensboro Messenger-Inquirer. Review copies will also be available for public review online at the USCG Office of Environmental Management's webpage. Interagency and intergovernmental coordination is a federally mandated process for informing and coordinating with other governmental agencies regarding federal proposed actions.

CEQ regulations require intergovernmental notifications before making any detailed statement of environmental impacts. A complete list of federal, state, and local agencies consulted for this EA is included in Section 7.0, and copies of relevant correspondence with those agencies are provided in **Appendices A** and **B**. Information and comments received from these agencies have been incorporated into this EA as appropriate. Native American tribes were also invited to participate in the NEPA process (see **Appendix A**) in accordance with Executive Order (EO) 13175, Consultation and Coordination with Indian Tribal Governments. Copies of relevant correspondence to and from the Kentucky State Historic Preservation Officer (State Historic Preservation Office [SHPO]) under Section 106 of the NHPA are provided in **Appendix B**.

SUMMARY OF POTENTIAL ENVIRONMENTAL CONSEQUENCES

A summary of potential environmental effects of each alternative is provided in **Table ES-1** below. The analysis assumes that best management practices (BMPs) included as standard provisions of USCG contracts and conservation measures developed during federal and state agency approval processes would be employed to avoid or minimize adverse effects on the environment. Use of BMPs and other standard conservation measures developed through technical assistance from regulatory agencies would ensure the Proposed Action would avoid significant impacts or reduce potential impacts to less than significant levels. This EA concludes that there would be no significant adverse impacts to the local physical and natural environment as a result of implementing the Proposed Action, with the adherence to federal, state and local laws and regulations, as well as avoidance and minimization measures and BMPs specified in this EA. Therefore, an EIS is unnecessary for implementing the Proposed Action, and a FONSI is appropriate. The USCG will strive to comply with all EA measures recommended to ensure effects to cultural and natural resources are avoided or minimized and are not significant. Additionally, the USCG will not begin any on-shore or in-water work until all regulatory consultation requirements are complete and all required environmental permits have been issued.

Table ES-1: Summary of Potential Effects to Affected Environmental Resources

Environmental Resources and Sub-Category		Alternative 1	Alternative 2 (Preferred Action Alternative)	Alternative 3	No Action Alternative
Air Quality and Climate		Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect during construction. Beneficial effect during operations.	Short-term, less-than-significant adverse effect.	No Effect.
Geology and Soils		Long-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect. Beneficial effect during operations.	Long-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.
Water Resources and Water Quality		NEPA: Long-term, less-than-significant adverse effect on river bottom. Short-term, less-than-significant adverse effect on Water Quality. No Effect on Floodplain. No Effect on Wetlands. CWA: Short-term, less-than-significant adverse effect.	NEPA: Long-term, less-than-significant adverse effect on river bottom. Short-term, less-than-significant adverse effect on Water Quality. No Effect on Floodplain. No Effect on Wetlands. Beneficial effect on Water Quality during operations. CWA: Short-term, less-than-significant adverse effect.	NEPA: Long-term, less-than-significant adverse effect on river bottom. Short-term, less-than-significant adverse effect on Water Quality. No Effect on Floodplain. No Effect on Wetlands. CWA: Short-term, less-than-significant adverse effect.	NEPA: Short-term, less-than-significant adverse effect on water quality. CWA: Short-term, less-than-significant adverse effect.
Biological Resources	Federally Listed Species	NEPA: May affect but is not likely to adversely affect mussels or bat species. ESA: May affect but is not likely to adversely affect mussels and no effect on bat species.	NEPA: May affect but is not likely to adversely affect mussels or bat species. ESA: May affect but is not likely to adversely affect mussels and no effect on bat species.	NEPA: May affect but is not likely to adversely affect mussels or bat species. ESA: May affect but is not likely to adversely affect mussels and no effect on bat species.	NEPA: No Effect. ESA: No Effect.

Environmental Resources and Sub-Category		Alternative 1	Alternative 2 (Preferred Action Alternative)	Alternative 3	No Action Alternative
	Aquatic Wildlife and Habitat	Long-term, less-than-significant adverse effect.	Long-term, less-than-significant adverse effect. Beneficial effect during operations.	Long-term, less-than-significant adverse effect.	Long-term, less-than-significant adverse effect.
	Migratory Birds and Raptors	NEPA: No Effect. MBTA: No take.	NEPA: No Effect. MBTA: No take.	NEPA: No Effect. MBTA: No take.	NEPA: No Effect. MBTA: No take.
	Terrestrial Vegetation	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Long-term, less-than-significant adverse effect.	No Effect.
	Noxious Weeds, Aquatic Nuisance Species, and Non-native Invasive Species	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.
Hazardous Material, Human Health and Safety		Short-term, less-than-significant adverse effect. Beneficial effects on human health and safety during operations.	Short-term, less-than-significant adverse effect. Beneficial effects on human health and safety during operations.	Short-term, less-than-significant adverse effect. Beneficial effects on human health and safety during operations.	Long-term, less-than-significant adverse effect.
Noise		Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	No Effect.
Transportation		Beneficial effect.	Beneficial effect.	Beneficial effect.	Long-term, less-than-significant adverse effect.
Infrastructure, Utilities, and Services		Beneficial effect.	Beneficial effect.	Beneficial effect.	Long-term, less-than-significant adverse effect.

Environmental Resources and Sub-Category	Alternative 1	Alternative 2 (Preferred Action Alternative)	Alternative 3	No Action Alternative
Visual Resources	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	No effect.
Cultural and Historic Resources	NEPA: No Effect. NHPA: No Adverse Effect.	NEPA: No Effect. NHPA: No Adverse Effect.	NEPA: No Effect. NHPA: No Adverse Effect.	NEPA: No Effect. NHPA: No Effect.

1.0 INTRODUCTION AND BACKGROUND

The U.S. Department of Homeland Security (DHS), U.S. Coast Guard (USCG) is proposing to conduct waterfront improvements to provide a dedicated homeport berth on the Ohio River designed to accommodate an incoming Waterways Commerce Cutter (WCC) River Buoy Tender (WLR) variant at the USCG Shore Side Detachment (SSD) Owensboro (Site) in Owensboro, Kentucky (**Figure 1-1**). The existing homeport pier is not compatible with the design and specifications of the incoming WCC WLR variant, especially during low flow conditions. The USCG proposes to expand the shore facilities and establish essential infrastructure to support the loading and operational requirements of the new WCC WLR prior to its arrival.

The USCG Site is located on the southern (left) shoreline of the Ohio River at 3301 KY-144, Owensboro, Kentucky in Daviess County, approximately 2.5 miles northeast of the city center, and approximately 0.6-mile outside the city limits boundary (**Figure 1-1**). The Site can be accessed using the USCG driveway via East 4th Street (Kentucky Highway 144). Facilities within the Site, including offices, shops, and maintenance buildings are not part of the proposed Project. The Project Area represents a portion of the Site and includes the existing mooring area, concrete pier, and utilities area (**Figure 1-2**).

The USCG as the lead agency has prepared this Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA) regulations (40 CFR 1501-1508) and associated DHS instructions (Instruction 023-01-001-01) (DHS 2014) and USCG Environmental Planning Policy (COMDTINST 5090.1) that govern the USCG's actions.

This EA has been completed to assist USCG in making an informed decision on which alternative is appropriate for completing waterfront improvements at the Site. The information and analysis contained in this EA will determine whether implementing the Proposed Action would result in a significant impact on the environment, requiring the preparation of an environmental impact statement (EIS), or if no significant impacts would occur and a finding of no significant impact (FONSI) would be appropriate.

1.1 Project Background

1.1.1 History and Current Status

The USCG's current tender fleet consists of 35 tenders that support their aid to navigation (ATON) mission in federal inland waters. These tenders play a vital role in directing the traffic of the Nation's Marine Transportation System (MTS) and support the U.S. economy by facilitating the efficient flow of goods nationwide (USCG 2024). The inland tenders can also perform missions including search and rescue; ports, waterways and coastal security; marine environmental protection, enabling them to efficiently and effectively respond to emergencies such as environmental incidents and severe storm events (USCG 2024). However, the current fleet of inland tenders has an average age of more than 57 years and is in a state of obsolescence, resulting in rising maintenance costs (USCG 2022a).

A NEPA-compliant Programmatic Environmental Impact Statement (PEIS) was completed for the WCC Acquisition Program in February 2022 which evaluated proposed WCC operations and training activities within the full suite of WCC operational areas (USCG 2022b). The PEIS determined that implementation of the WCC Acquisition Program would not be expected to significantly contribute to cumulative impacts on species, critical habitat, the environment, or socioeconomics.

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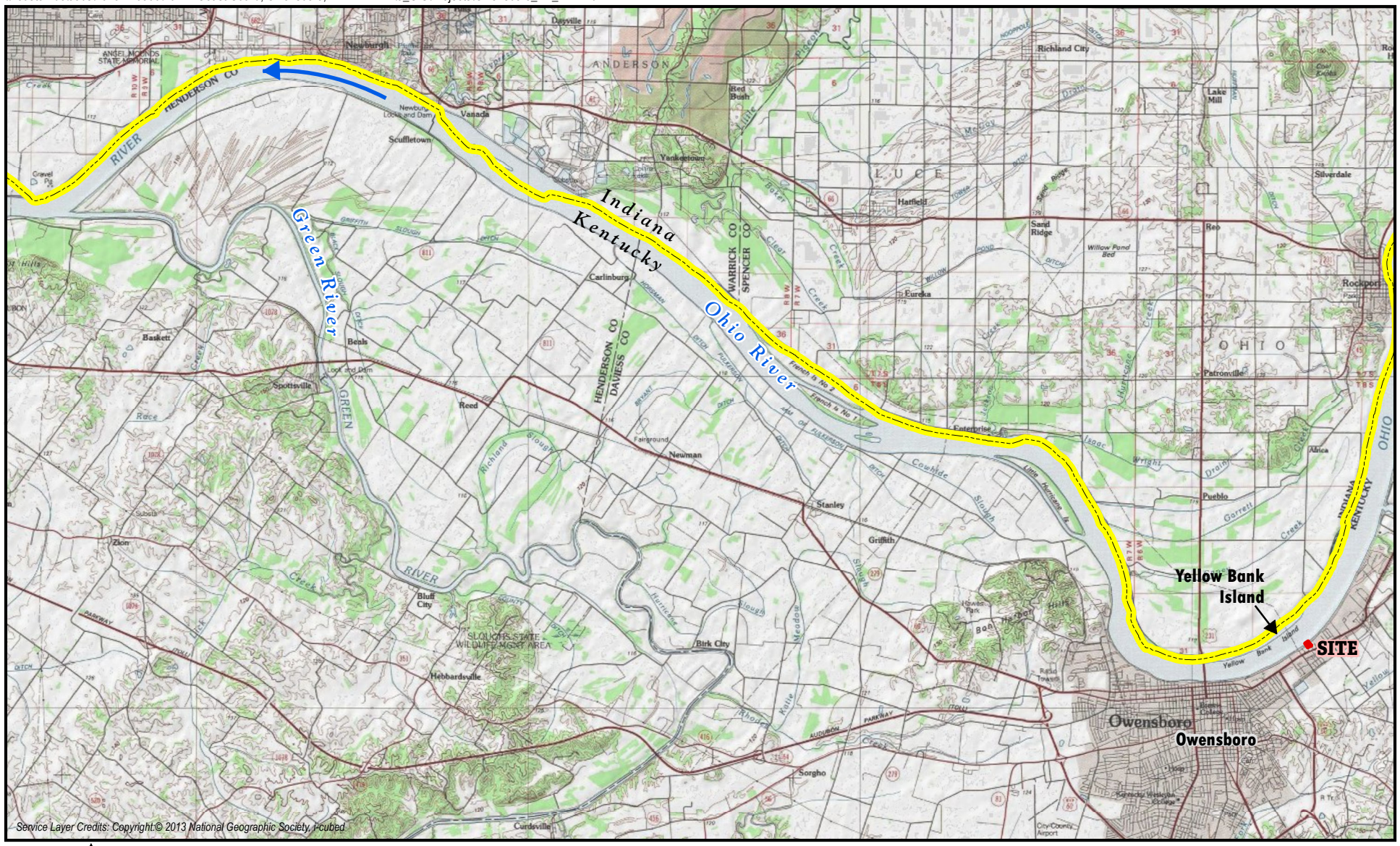

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Location Map
USCG WCC Homeport and
Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 1-1

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Feet

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Project Area
Site
Approximate Dredge Area Under Alternatives 1 and 3

Site Map
USCG WCC Homeport and Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 1-2

In addition to age concerns and associated equipment obsolescence issues, the existing fleet presents other sustainment challenges, including hazardous materials stemming from the use of asbestos and lead paint during construction of these assets (Congressional Research Service 2024 [CRS]). Outdated technology and vessel designs have also led to crew safety concerns and noncompliance with environmental regulations (CRS 2024). Lastly, vessel configuration does not allow the assignment of mixed gender crews in accordance with the USCG's workforce goals (CRS 2024). The USCG WCC Program is replacing the existing inland tenders with 16 River Buoy Tenders (i.e., WLRs), 11 Inland Construction Tenders (WLICs), and 3 Inland Buoy Tenders (WLIs). The new WCCs will feature improved habitability and will better accommodate mixed-gender crews (USCG 2022a).

The Site currently serves as the dock for the USCG Cutter (USCGC) Obion, hull No. WLR-65503. The Obion entered service in approximately 1962. The main mission of the Obion and its crew is to maintain federal aids to navigation (buoys and lights) of approximately 600 river miles of the Ohio and Green Rivers. The USCG has determined the current Site is the preferred location for continued WCC Homeport operation in the area. The USCG is slated to receive the newly designed WCC in FY2032, which the current waterfront facility will not accommodate.

The current Site functions well for the current cutter and operations. However, the primary operational issue is the presence of drift in the river. Coarse woody debris and trash (i.e., drift) accumulate under the barge/vessel as well as between the barge/vessel and the bank due to the hydrologic features associated with the position on the landscape (river bend). An upstream debris barrier was installed in 2014 to deflect debris; however, the structure was only in place for a few years before it was destroyed by drifting debris. Substantial accumulation continues and debris must be physically removed every year.

The secondary operational issue is the periodic requirement for dredging to maintain adequate operating depths due to ongoing sediment buildup from downstream debris. According to U.S. Geological Survey (USGS) stream gage data recorded at the Ohio River at Riverport monitoring station (03303502), the USCG SSD Owensboro is subject to water level fluctuations of 20-feet or more (USGS 2024a). The water level at the pier averages 12 feet deep. The new WCC will require 8 to 10 feet of water. The water level at the furthest downriver piling averages 7 feet deep which is too shallow to navigate the Obion or future WCC. As is, the USCG must approach the existing pier in such a way as to avoid the shallow portion of the waterfront. The area under the pier was dredged in 2022.

The existing fixed pier serves as the laydown space for the loading and unloading of the buoys directly from the barge. However, the existing floating moorings and aluminum gangway are not large enough for the incoming WCC and will not meet the full Integrated Logistics Support Plan (ILSP) mooring requirements. Further, the current utilities and electrical service will not meet the requirements of the incoming WCC. Shore-side utilities including water, fire protection, electrical, and telecom would need to be upgraded.

1.1.2 Existing Facilities

The Project Area includes the existing mooring area, concrete pier, and utilities area (**Figure 1-2**). Facilities within the larger Site (also see **Figure 1-2**), including offices, shops, and maintenance buildings are not part of the proposed Project.

Specifically, existing structures within the Project Area include:

- A concrete pier constructed of pre-stressed, pre-cast hollow beams and supported by three pile bents and a landside abutment. The pier is approximately 140 feet long and varies in width from 16 to 20 feet. The pile bents consist of four, 20-inch diameter concrete filled steel piles supporting a cast in-place pile cap 3.5 feet deep. Galvanized steel guardrails line the sides and end of the pier.
- A floating dock, approximately 75-feet long with a maximum width of 18 feet, located on the downstream side of the pier and accessed by an aluminum ramp and held together by six, 12-inch diameter steel piles.
- Mooring for the current Obion is comprised of four, 48-inch piles located at the bow end of the barge and along the inboard side.
- Concrete pavement area for buoy and anchor storage and maintenance.
- Remains of the upstream debris barrier installed in 2014.
- Water, sewage, and electrical utilities.

1.2 Purpose and Need

The purpose of the Proposed Action is to provide the necessary homeport improvements to accommodate the new WCC WLR at the existing homeport, maintain the viability of SSD Owensboro, and meet the USCG mission requirements at the Site.

The need for the Proposed Action is to address insufficient load capacity of the existing pier deck, insufficient water depths at the existing floating mooring, the turning basin in front of SSD Owensboro, and the vessel berth area at the pier and floating mooring. The Proposed Action is also needed to deflect large woody debris from accumulating at the floating mooring, so that USCG mission requirements may be carried out. The waterfront facilities, which connect to the Owensboro Yard's upland storage area and building, are used currently to store the ATON devices. As the only USCG SSD in the area, the waterfront facilities need to be accessible by the USCG vessel and have the appropriate facilities to meet the USCG mission requirements.

With the Ohio River serving as a significant waterway for interstate commerce in the United States, it is essential that navigational aids are maintained to help guide the vessels navigating it. However, the current USCGC Obion has been in service for over 62 years and is in a state of obsolescence. The low water level at the pier and accumulation of debris at the mooring are hindering safe and efficient operation at the existing homeport.

The incoming WCC will be a monohull ship, meaning it has self-propelled cutters instead of tug and barge configurations (USCG 2024). The new tender will have greater endurance, speed, and deck load capacity than its predecessor, enabling the USCG to quickly and effectively respond to emergencies.

The Owensboro homeport improvements would ensure the facilities provide a viable Final Operating Capability for cutter operations in support of the USCG's mission.

1.3 Agency and Public Involvement Process

Pursuant to the requirements of NEPA (40 CFR 1506.6), this EA is subject to public involvement. Consideration of the views and information provided by all interested persons promotes open communication and enables better decision-making. Agencies, organizations, and members of the public with a potential interest in the Proposed Action, including minority, low-income, and disadvantaged groups, are encouraged to participate. A record of public involvement, agency coordination, and Native American consultation associated with this EA is provided in **Appendix A** and **Appendix B**. A complete list of agencies and individuals consulted during preparation of this EA is included in **Section 7.0**.

1.3.1 Agency Coordination/Consultation

Interagency and intergovernmental coordination is a federally mandated process for informing and coordinating with other governmental agencies regarding federal proposed actions. Council on Environmental Quality (CEQ) regulations require intergovernmental notifications before making any detailed statement of environmental impacts. This coordination also fulfills requirements under Executive Order (EO) 12372 (*Intergovernmental Review of Federal Programs*; superseded by EO 12416, and subsequently supplemented by EO 13132), which requires federal agencies to cooperate with and consider state and local views in implementing a federal proposal.[1]

Project scoping letters were sent via e-mail or mailed via U.S. Postal Service to various federal, state, and local agencies and tribal entities to solicit comments and feedback on the Proposed Action. Agencies and local entities consulted for this EA include the U.S. Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), US Environmental Protection Agency (USEPA), USGS. Ohio Kentucky Indiana Water Science Center, Kentucky Department of Environmental Protection (KDEP), Kentucky Heritage Council (KHC), Kentucky Energy and Environment Cabinet, Kentucky Department of Fish and Wildlife Resources, Daviess County, City of Owensboro, Owensboro Riverport, and Owensboro Metropolitan Planning Commission. Tribal representatives of Shawnee, Cherokee, Chickasaw, and Osage were also mailed scoping letters.

Agency information and comments have been incorporated into this EA as appropriate. A copy of relevant correspondence and agency responses can be found in **Appendix A.** Kentucky Heritage Council correspondence can be found in **Appendix B**.

[1] [1] USCG is aware of the November 12, 2024, decision in *Marin Audubon Society v. Federal Aviation Administration*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the CEQ regulations implementing NEPA are not judicially enforceable or binding on this agency action, USCG has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500–1508, in addition to USCG procedures/regulations implementing NEPA at COMDTINST 5090.1, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

1.3.2 Public Review

The USCG, as the proponent, will publish a Notice of Availability (NOA) of the Draft EA in the legal notices section of the *Owensboro Messenger-Inquirer* for a 30-day public review and comment period. Review copies will be available for public review online at: https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Engineering-Logistics-CG-4-/Program-Offices/Environmental-Management/Environmental-Planning-and-Historic-Preservation/.

Responses received during project scoping are included in **Appendix A**.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This section describes the Proposed Action and the alternatives carried forward for analysis including the No Action Alternative.

2.1 Description of the Proposed Action

Under the Proposed Action, the USCG would upgrade the existing facilities at the USCG SSD Owensboro to accept a planned WCC variant and address the operational dredging and drift accumulation issues associated with the current Site/facilities.

The Proposed Action would consist of the following primary components:

1) Replace the deck of the existing pier with a deck rated for a higher load capacity (400 pounds per square foot (psf) versus the existing 150 psf).
2) Widen the new deck to 20 feet for most of the pier and then to 25 feet at the end to allow for utilities. The 20-foot-wide section would either be striped as a fire lane or the pier would be widened to accommodate a dedicated fire lane.
3) Replace the existing floating dock (mooring) with a longer (200 feet total) and wider (23 feet total) floating dock to accommodate the new WCC WLR variant.
4) Replace the existing debris deflector with a more substantial debris deflector.
5) Upgrade shore-side cutter utilities (sewer, water, and electrical).
6) Extend a 6-inch fire line from the existing fire hydrant located southwest of the shore side end of the pier to the channel side end of the pier.

To increase the vertical load capacity of the pier, the USCG would demolish and reconstruct all existing pier components above the pile caps. Re-construction would consist of adding three intermediate bents with four HP14 piles and a cast in place pile cap between each existing bent. The additional bents would reduce the beam span to a maximum of 25 feet. The pile bents would support new weathering steel beams and a 6-inch concrete deck. To provide floating dock space between the new cutter and the end of the pier, a new floating dock would be moved approximately 14 feet toward the river channel which would require two new 48-inch diameter mooring piles at the bow and port quarter (left side of stern) of the new vessel. A new debris deflector would be designed to handle river drift and prevent accumulation within the Project Area. Shore-side utilities would be upgraded or constructed to meet the requirements of the incoming WCC. It is anticipated that much of the Proposed Action would be conducted from the water via barges/vessels; however, some equipment may access the pier demolition and construction from the upland side of the Site.

During demolition and construction of pier components, the Obion and crew would conduct operations from a temporary mooring located offsite from SSD Owensboro.

As previously stated, (Section 1.1.1), the commissioning and operation of these next-generation WCC-WLRs within the Inland Waters and Western Rivers (IW&WR) of the U.S. was previously analyzed under a separate PEIS (USCG 2022b); as such, this EA tiers from that evaluation and addresses the specific homeport development elements in Owensboro, Kentucky.

2.1.1 Maintenance Dredging

Maintenance dredging at SSD Owensboro has been necessary to ensure the USCG can sustain mission readiness. Following review of environmental resources, previous maintenance dredging was approved by the Department of the Army (DA) on February 1, 2022 (Decision Support System [DSS] ID: DSS-USCG-2021-13595) and authorized by the USACE under Nationwide Permit (NWP) No. 35, *Maintenance Dredging of Existing Basins* (ID No. LRL-2021-334). Under the provisions of the authorization, dredged material was properly contained to prevent sediment from reentering the river. In 2022, approximately 4,695 cubic yards was mechanically dredged and disposed of at the West Daviess County Landfill.

Proposed maintenance dredging would occur in the vessel berth area (**Figure 1-2**). USCG threshold and objective mooring depth requirements at the vessel berth area are 10 and 12 feet, respectively. Based upon an average pool elevation of 358.0 feet, these depths represent bottom elevations of 348.0 and 346.0. Bottom elevations at the revised mooring location range from 348.0 at the stern and 350.0 at the bow along the shore side and 341.0 to 347.0 on the channel side. These depths do not meet threshold or objective requirements and require up to 3 feet of dredging in the vessel berth area for threshold values and up to 4 feet for objective levels.

The excavated dredge material would be dewatered, allowing water to drain out and leaving behind only solid dredge material to either be disposed of at an approved disposal location or be beneficially reused. Prior to proposed maintenance dredging and securing the appropriate permits with the USACE and Kentucky Division of Water, sediment sampling would be performed to evaluate potential for beneficial reuse based on allowable parameters. Beneficial reuse would be pursued to the maximum extent feasible pursuant to Clean Water Act (CWA) Section 404(b)(1), which requires selection of the Least Environmentally Damaging Practicable Alternative. The federal standard is defined in the USACE regulations as the least costly dredged material disposal or placement alternative(s) identified by USACE that is consistent with sound engineering practices and meets all federal environmental requirements, including those established under the CWA and Marine Protection, Research, and Sanctuaries Act (33 CFR 335.7). The nearest known USACE-permitted location to offload and store dredged material to be beneficially reused is located at Ohio River mile marker 800 in Henderson, Kentucky, approximately 50 river miles downstream from SSD Owensboro.

2.2 Alternatives for Evaluation

The USCG determines facilities requirements for various actions (e.g., Integrated Logistics Support Plan (ILSP) system). Use of this system, in conjunction with master planning, identifies the need for capital facilities projects, including those associated with commissioning and homeporting new vessels, aircraft, or mission systems that support these assets. Once a need is identified, the USCG evaluates potential alternatives and ensures that various factors (e.g. cost, environmental impact, safety, etc.) are thoroughly considered.

Three alternatives identified by the USCG as part of project planning are analyzed in this EA. A brief description of each alternative is presented below. Engineered drawings of each alternative are presented in **Appendix C**. Alternatives considered but dismissed are discussed in **Section 2.3**.

2.2.1 Alternative 1

Alternative 1 (**Appendix C, Plate 1**) includes demolishing and reconstructing the pier components above the pile caps and widening the pier deck 5 feet which would require 4 additional piles. Alternative 1 also includes re-positioning a longer and wider floating dock with additional mooring piles as described above. To address the drift accumulation issue, a structural debris barrier would be constructed upstream of the mooring. Six steel sheet pile cofferdams, 10-12 feet in diameter and approximately 30 feet on center, would be driven into the riverbed and filled with rock. Floating debris would be intercepted by an open, structural steel barrier installed between the cofferdams and extending approximately 5 feet below the mean pool elevation of 358 feet. This configuration would intercept debris but allow flow through the area to prevent excessive siltation. A braced sheet pile closure wall would be constructed between the nearest shore side cofferdam and riverbank to prevent the flow of drift along the shoreline. Hazard beacons would be located on the cofferdams to comply with USACE requirements. Drift accumulation would be significantly reduced in the Project Area, reducing the need for physical removal of material. This debris deflector design would likely require little to no maintenance for 30 years.

The revised mooring location would help meet the water depth requirement of 10 to 12 feet for the new cutter; however, reductions in mooring depth may occur due to sediment deposits and debris accumulation beneath the cutter. Under this alternative, periodic maintenance dredging would be required every 5 years at the vessel berth area to address sediment deposits.

Electrical load requirements would be met by the installation of a new transformer, metering installation, and main distribution panel on the shore along 400- and 100- ampere (amp) Power Mound receptacles located on the pier. Shore tie power conductors would be provided for ship to shore power connections.

2.2.2 Alternative 2

Alternative 2 (**Appendix C, Plate 2**) was developed to address both the drift and dredging issues. Alternative 2 is similar to Alternative 1 with the exception that the pier would be extended 25 feet to provide additional mooring depth, precast concrete beams would be used for pier construction in lieu of weathering steel, and floating debris would be intercepted by a heavy-duty debris boom/barrier. Implementation of Alternative 2 would eliminate dredging and decrease routine maintenance costs. Under Alternative 2, the bottom elevations at the revised mooring location range from 342.0 feet at the stern and 346.0 feet at the bow along the shore side and 332.0 to 340.0 feet on the channel side. These depths meet objective requirements eliminating immediate concerns regarding maintenance dredging. Implementation of Alternative 2 would require new mooring piles and extension of the utilities to accommodate the longer pier deck. The debris deflector under Alternative 2 would consist of six sheet pile cofferdams anchoring a heavy-duty floating debris barrier. This configuration would intercept debris but allow flow through the area to prevent excessive siltation. A braced sheet pile closure wall would be constructed between the nearest shore side cofferdam and riverbank to prevent the flow of drift along the shoreline. Hazard beacons would be located on the cofferdams to comply with USACE requirements. Drift accumulation would be significantly reduced in the Project Area, reducing the need for physical removal of material. This debris deflector design would likely require little to no maintenance, though it may need to be replaced every 15 years.

Electrical load requirements would be met as described under Alternative 1.

2.2.3 Alternative 3

Alternative 3 (**Appendix C, Plate 3)** is similar to Alternative 1 with two exceptions. Floating debris would be intercepted by a heavy-duty floating debris barrier anchored between six cofferdams, similar to the debris deflector under Alternative 2. Also under Alternative 3, the pier would be widened 20 feet for a total width of 36 to 40 feet to provide a dedicated fire lane rather than striping the 20-foot pier as a fire lane. This widened pier requires six additional piles. As in Alternative 1, periodic maintenance dredging at the vessel berth area would likely be required every 5 years. As in Alternative 2, the debris deflector design would likely require little to no maintenance, though it may need to be replaced every 15 years.

2.2.4 No Action Alternative

The No Action Alternative would retain existing facilities for indefinite continued use with only routine repair and maintenance provided. The low water level at the pier and accumulation of debris at the mooring would continue to hinder safe and efficient operation at the existing homeport. Under the No Action Alternative maintenance dredging would occur as frequently as annually in order to provide a safe and adequate vessel berth area and navigation.

Under the No Action Alternative, the Owensboro homeport improvements would not occur, and existing facilities would not be able to provide a viable Final Operating Capability for cutter operations in support of the USCG's mission.

2.2.5 Alternatives Considered but Dismissed from Detailed Analysis

The USCG considered other alternatives during the planning process, but these alternatives were found to be non-viable options and are not examined in this EA as they do not meet the purpose and need for the Proposed Action. These alternatives, and the reasons why they were deemed non-viable, are described below.

Rebuild Entire Pier to Accommodate Crane Height of Incoming WCC WLR Variant – This alternative would demolish and rebuild the entire existing pier at a lower height. During early project planning, the USCG assumed that during low river flow conditions, the crane of the WCC WLR variant would not be able to reach the pier to safely and effectively load buoys onto the barge. After the initial site investigation and project research, the USCG determined that with the incoming WCC WLR variant, the existing pier would be adequate for the loading/offloading of buoys and sinkers.

Relocate to an Existing Federal Installation - This alternative would demolish all existing facilities at SSD Owensboro and relocate operations to other appropriate existing or new facilities (buildings and piers) within an existing federal installation. Construction, renovation, and/or reconfiguration of these facilities would have to be accomplished as necessary to accommodate SSD Owensboro mission support requirements. No existing federal installations in the area have a presence on or ready access to the Ohio River. Therefore, this alternative was considered non-viable and was eliminated from further consideration in this EA.

2.3 Regulatory Compliance

This EA has been prepared in accordance with NEPA, CEQ Regulations, DHS Management Directive 023-01, and COMDTINST 5090.1 (series). The information and analyses contained in this EA will serve as the basis for the USCG's decision-making process for the Proposed Action.

The primary legislation affecting the decision-making process associated with the Proposed Action is NEPA. NEPA requires that federal agencies consider the potential environmental consequences of their proposed actions to protect, restore, or enhance the environment through well-informed federal decisions with public input. The CEQ was established under NEPA for the purpose of implementing and overseeing federal policies as they relate to this process. In 1978, the CEQ issued *Regulations for Implementing the Procedural Provisions of the NEPA* (40 CFR Parts 1500-1508). These regulations specify that an EA be prepared to:

- Briefly provide sufficient analysis and evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI), the latter of which is the "decision document" that closes the EA process when no unavoidable significant impacts are identified;
- Aid in an agency's compliance with NEPA when no EIS is necessary; and
- Facilitate preparation of an EIS when one is necessary.

Further, to comply with other relevant environmental requirements (e.g., Endangered Species Act [ESA], National Historic Preservation Act [NHPA], CWA, etc.) in addition to NEPA, and to assess potential environmental impacts, the decision-making process for the Proposed Action involves a thorough examination of all environmental issues pertinent to the Proposed Action. Federal, state, and local regulations and requirements, as well as Executive Orders (EOs) and USCG- and DHS-specific regulations, relevant to the Technical Resource Areas of concern for this Proposed Action are presented in **Section 3.0**, as appropriate. Please refer to **Section 3.0** for further information.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This section describes the current baseline conditions for resources potentially affected by the Proposed Action within and in the vicinity of the Owensboro facility. In compliance with NEPA, CEQ Regulations, and COMDTINST 5090.1 (series), this section focuses only on resources that would be potentially affected by the implementation of the Proposed Action and identifies potential effects of the identified project alternatives on each of the issue areas presented in this section.

3.1.1 Resource Analysis

The USCG reviewed potentially affected resources during construction and operation to determine if they may be significantly impacted by the Proposed Action. The analysis of effects is disclosed under each affected resource and focuses on potential effects remaining after the implementation of Best Management Practices (BMPs) (see **Section 4.0**).

The USCG is required to consider specific technical resource areas that are subject to requirements specified in statutes, regulations, or by EOs (Supplemental Authorities). In addition to resources covered by Supplemental Authorities that require consideration in NEPA documents, the USCG considers other technical resource areas that may be affected by the Proposed Action and alternatives.

3.2 Resources Eliminated from Detailed Analysis

CEQ regulations (40 CFR §1501.7) state that the lead agency will identify and eliminate from detailed study the issues or resources that are not important or have been covered by previous environmental review, narrowing the discussion of these issues in the document to a brief justification that demonstrates a minor impact on the human environment. The following sections summarize those resources relevant to the Project but that are unlikely to be affected by the Proposed Action. Rationale for eliminating these resources from further analysis in this EA is discussed below.

3.2.1 Socioeconomics

A socioeconomic assessment evaluates the Project's potential effects on employment, commerce, local demographics, or other measures of a community or population's wellbeing. The Project would not significantly contribute to or affect any parameters either directly or indirectly. Although the Proposed Action may result in beneficial effects from local spending during construction activities, the amount would be temporary and negligible in the context of the local and regional economy. Further, there would be no long-term changes to employment or the local population. Therefore, local housing availability, community services, schools, and the local economy would remain the same overall. There are potential beneficial effects to USCG emergency response services through improvement of the waterfront facilities and replacement of the outdated vessel.

3.2.2 Recreation

There are no designated recreational areas or public access sites within the Project Area, however recreational use of this segment of the Ohio River does occur. Recreational opportunities on the Ohio River include boating, fishing, and high-speed boat races. English Park, located approximately 4 miles west (downriver) of the Project Area, is the nearest public boat launch that provides public access to the Ohio River. According to the *Owensboro Riverfront District Master Plan Report* (2001), very few marina facilities exist in the Owensboro area due to critical factors including water level fluctuations, floods, frequency of occurrence of ice and floating debris, and level of commercial barge traffic that occur along the river (Tapp 2001). These factors tend to deter many boaters and recreationalists from utilizing the river in the vicinity of the Project Area as a preferred site for recreation (e.g., fishing). According to Kentucky Department of Fish and Wildlife Resources (KDFWR), numerous lakes in the Owensboro area, such as Yellow Creek Park, Carpenter Lake, Kingfisher Lake, Waymond Morris Park, Jack C. Fisher Park, and Panther Creek Park are preferred areas for recreational boating and fishing (KDFWR 2024a).

While the public would temporarily be precluded from recreating near the Site during construction, the already limited recreational use of the Ohio River proximal to the Project Area, including lack of public river access nearby, as well as the availability of other recreational areas would limit potential effects to recreation users in this localized area.

3.2.3 Land Use

According to USGS *Multi-Resolution Land Characteristics Consortium* (MRLC) *Annual National Land Cover Data* (NLCD), the land cover at the Site is primarily developed land of medium intensity, followed by developed land of low intensity, developed land of high intensity, and open water (USGS 2023). Implementation of the Proposed Action would not change existing land use within or surrounding the Project Area. The Project Area would remain a homeport in support of USCG missions and operations. There would be no effect on land use and zoning as a result of the Proposed Action.

3.3 Air Quality and Climate

3.3.1 Affected Environment

Climate

The USCG SSD Owensboro is located in northern Daviess County in the Ohio River Valley. Between 1981-2010, the average annual precipitation in Owensboro, Kentucky totaled approximately 47.8 inches, with a mean max temperature of 71°F and mean minimum temperature of 47.4°F (WRCC 2025). The first freeze usually occurs at the end of October while the last freeze is typically around early April (USDA NRCS 2025).

Greenhouse gases (GHGs) include water vapor, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. GHGs are regulated under Section 202 of the CAA. The USEPA regulates GHGs through mobile source emission standards and permitting requirements under the Title V Operating Permits program. These regulations include fuel efficiency and renewable fuel standards on light-duty, medium-duty, and heavy-duty vehicles.

The Kentucky Energy and Environment Cabinet oversees the protection of the environment by enforcing related laws and regulations (KYEEC 2022). In 2013, The Kentucky Energy and Environment Cabinet released *GHG Policy Implications* in response to Section 111(d) of the Clean Air Act which requires the state to submit a plan to establish standards of performance for existing sources. Although Kentucky has no plans to track GHG emissions, they do have an objective in place to minimize the generation of GHGs in Kentucky. The objectives include decreasing fossil fuel electricity generation, transitioning to a cleaner fleet, when necessary, and encouraging diversity for Kentucky's electricity generation fleet (KYEEC 2013).

Air Quality

The Clean Air Act (CAA) of 1970, 42 U.S.C. 7401 et seq., amended in 1977 and 1990, is the primary federal statute governing air pollution. The CAA designates six pollutants as criteria pollutants, for which *National Ambient Air Quality Standards* (NAAQS) have been promulgated to protect public health and welfare.

The six criteria air pollutants are carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO_2), ozone (O_2), particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2). Volatile organic compounds (VOCs) are not considered criteria pollutants, but emissions of VOCs are linked to O_3 concentrations. In addition, federal law requires state or local air quality control agencies to establish a State Implementation Plan (SIP) that prescribes measures to achieve or maintain attainment of these standards. Areas that do not meet NAAQS are designated as "non-attainment" for that criteria pollutant. USEPA Region 4 and the Kentucky Department for Environmental Protection, Air Quality Division, regulate air quality in Kentucky. USCG SSD Owensboro is in the Evansville-Owensboro-Henderson Air Quality Control Region (40 CFR 81.113).

The General Conformity Rule has been promulgated by the USEPA to ensure that the actions of federal departments or agencies conform to the applicable SIP. The General Conformity Rule covers direct and indirect emissions of criteria pollutants or their precursors that are caused by federal action. Conformity evaluations are not required for areas that are "in attainment" for NAAQS. USCG SSD Owensboro is located in Daviess County, Kentucky, which is an attainment area for all criteria pollutants based on data current as of December 31, 2024, from EPA *Kentucky Nonattainment/Maintenance Status* (EPA 2024a); therefore, no applicability analysis under the General Conformity Rule is required.

The CAA, Section 169A, established the Prevention of Significant Deterioration (PSD) regulations to protect the air quality in regions that already meet the NAAQS. The primary purpose of the PSD regulation is to ensure that impacts from new or modified sources combined with other sources do not exceed the maximum allowable incremental increase for those pollutants in attainment. The PSD analysis is only required for point sources and, therefore, does not apply to the Proposed Action (EPA 2025).

Under CAA, USEPA established *New Source Performance Standards* and *National Emission Standards for Hazardous Air Pollutants* (NESHAPs) to minimize emissions of criteria pollutants and hazardous air pollutants (HAPs) from man-made emission sources. Although typically present in minimal quantities in ambient air, HAPs have high toxicity which may pose a threat even at low concentrations. NESHAPs primarily apply to "stationary sources," which are emission sources that have a fixed location (e.g., fuel-burning boilers and generators, entire facilities/plants, etc.), as opposed to "mobile sources," which are emission sources that have the ability to move from one location to another (e.g., motor vehicles, trains, airplanes, etc.).

Current emissions on or in the vicinity of the Project Area consist of ongoing grounds maintenance (e.g., mowing); fuel-fired and natural gas-fired boilers; internal combustion engines; painting; and nearby vehicle emissions along adjacent roadways and within nearby properties.

Sensitive receptors include, but are not limited to, asthmatics, children, and the elderly, as well as specific facilities, such as long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, and childcare centers. The Owensboro Health Regional Hospital is located approximately 0.7 miles south-southeast of the Project Area.

3.3.2 Environmental Consequences

The following criteria were used to address effects to air quality:

- The alternative would have an adverse effect if it would result in emissions of regulated air pollutants that would not otherwise occur. The adverse effect would be significant if it resulted in the exceedance of emission thresholds or change the attainment status of the surrounding area. This effect would be less-than-significant if the emissions remained below regulatory thresholds (for criteria pollutants and HAPs) or would be sufficiently small relative to existing emissions.
- The alternative would have a beneficial effect if it would result in a permanent reduction in regulated air pollutant emissions.

Effects from Alternative 1

Demolition of the existing pier deck and construction of the new pier deck under Alternative 1 would generate localized emissions and could result in minor, short-term effects to air quality. Heavy-duty construction equipment would be the primary source of air pollutants, and would generate VOCs, nitrogen oxides, SO_2, CO, $PM_{2.5}$ and PM_{10}, and GHGs from fuel combustion. Fugitive dust generation could occur from vehicle movement.

Construction of the cofferdams associated with the debris deflector would also generate emissions as described above and could result in minor, short-term effects to air quality from in-water construction equipment.

Construction of additional floating docks would require additional piles to be driven into the water. A pile-driving barge would be the primary source of air pollutants and would have minor, short-term effects on localized air quality. Emissions would also be generated during operation of dredge and disposal equipment (e.g., tugboats, cranes, pumps) during anticipated maintenance dredging operations. NO_x is the pollutant of greatest concern with respect to these activities, although CO, PM, SO_2, and VOCs may also be emitted by dredge equipment. NO_x emissions are generated by equipment engines and would contribute to regional ozone concentrations.

The dredged sediment would be transported via barge to the nearest known USACE permitted site located approximately 50 river miles downstream from SSD Owensboro in Henderson, Kentucky. Once at the site, dredged sediment would be offloaded into haul trucks and either disposed of or beneficially reused per USACE permit requirements. Emissions would be highly localized and temporary and would not have a significant effect on climate change vulnerability. The USCG would minimize temporary effects to localized air quality through implementation of the BMPs outlined in **Section 4.0**.

Effects from Alternative 2

The air quality effects of Alternative 2 would be similar to those described for Alternative 1. Additionally, there would be increased construction time due to this alternative extending the length of the pier by 25 feet and replacement of the heavy-duty barrier every 15 years. This minor increase in construction time would be offset by the elimination of long-term maintenance dredging relative to the current operation (under the No Action Alternative) and under Alternatives 1 and 3. Therefore, operations would likely result in a beneficial effect due to a long-term decrease in emissions under Alternative 2 as compared to the other alternatives.

Effects from Alternative 3

The air quality effects of Alternative 3 would be similar to those described for Alternative 1, with the addition of effects from increased construction time of the wider pier and replacing the heavy-duty debris barrier every 15 years. While there would be a relative increase in emissions under Alternative 3, operation of the waterfront improvements would still have negligible (less than significant) effects on localized air quality.

Effects from the No Action Alternative

Under the No Action Alternative, the existing facilities would remain in place with no construction. No demolition or use of air pollutant-generating construction equipment would occur; however, maintenance dredging of the vessel berth area would continue to be required approximately every 5 years. Air emissions generated from annual maintenance dredging activities would continue to have negligible long-term effects to existing air quality in the vicinity of the USCG SSD Owensboro as described above for Alternatives 1 and 3.

3.4 Geology and Soils

3.4.1 Affected Environment

The geological setting of the Owensboro area can be described as quaternary, glacial deposits from the Holocene and late Pleistocene age. These sediments consist of mainly eroded rock from the Paleozoic rocks on the surface, as well as material that had been transported from the Ohio River Valley. The distance that the material traveled also lead to a unique variety of igneous, metamorphic, and sedimentary rocks that would not otherwise naturally occur in Kentucky (KGS 2024a).

According to the *Kentucky Geologic Map Survey*, the primary lithology of the general area is sand, gravel, silt, and clay. The top layer consists of clay or fine sand from the Tazewell deposit that is brown to light olive in color, silty, and plastic. The mid layers consist of sandy gravel and the lowest layers are made up of brown to yellowish sand that is well sorted and surrounded by quartz grains from the igneous and metamorphic glacial deposits [Kentucky Geologic Survey (KGS 2024b)]. Available boring logs for the Project Area show silty sand to sandy lean clay at the top, poorly graded sand in the middle, and medium to dense grained sand at the bottom. Sandstone and shale lined the bottom of these deposits (FMSM Engineers 1994).

Soils are unconsolidated materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability for the ground to support man-made structures. Soils are typically described in terms of their complex type, slope, physical characteristics, and relative compatibility or constraining properties with regard to particular construction activities and types of land use. Soil at the Site is comprised of approximately 44 percent (1.8 acre) Elk-Urban land complex, 0-2 percent slopes; approximately 24 percent (1.0 acre) Robbs-Urban land complex, 0-2 percent slopes; approximately 19 percent

(0.8 acre) Huntington silt loam, 0 to 4 percent slopes, occasionally flooded; and approximately 13 percent (0.5 acre) Alluvial land, steep, wheeling flooded (NRCS 2024b). The soil profile throughout the Site is almost exclusively silt loam and loam though a minor component of fine sandy loam exists along the shoreline. Soils are derived from mixed fine-silty alluvium and noncalcareous loess parent materials typical of floodplains, riverbanks, and well drained stream terraces (NRCS 2024b). The US Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) does not map soils within the Project Area as the area is primarily in water.

Prime farmland exists within the upland portion of the Site (not in the Project Area); however, this area is paved (parking lot) and is not part of the Proposed Action.

3.4.2 Environmental Consequences

The following criteria were used to address effects to geology and soils:

- The alternative would have an adverse effect if it would disturb or remove natural soils. The adverse effect would be significant if it would result in increased erosion or soil contamination, or if the affected soils were rare or valuable. The adverse effect would be less-than-significant if disturbance of soil and potential for erosion could be controlled through BMPs.
- The alternative would have a beneficial effect if it would decrease or minimize soil erosion or result in the stabilization or protection of soil conditions.

Effects from Alternative 1

Under Alternative 1, demolition of the existing pier deck, as well as construction of the new pier deck, cofferdams, and additional pilings would disturb soil and river bottom sediments. However, BMPs outlined in **Section 4.0** would be implemented to minimize soil erosion under the pier deck and limit sediment contributions to the Ohio River. BMPs (e.g., turbidity curtains) would minimize sedimentation into surrounding waters associated with construction of cofferdams.

Under Alternative 1, regular long-term maintenance dredging would be required within the vessel berth area. Dredged material generated would first be dewatered, tested for potential contaminants, then transported by barge downriver approximately 50 river miles to the nearest known USACE permitted location where it would be offloaded and either disposed of or beneficially reused per permit requirements. Alternative 1 would have a long-term, less-than-significant adverse effect to geology and soils.

Effects from Alternative 2

The short-term construction-related effects to geology and soils under Alternative 2 would be similar to those described for Alternative 1, but with increased temporary disturbance to river sediments given that the pier would be extended by 25 feet (requiring additional construction/disturbance). This increase in temporary river sediment disturbance during the construction phases would be partially offset by the elimination of long-term maintenance dredging relative to the current operation (No Action Alternative) and that proposed under Alternatives 1 and 3, resulting in a long-term beneficial effect.

Effects from Alternative 3

The effects to geology and soil during construction would be similar to those described for Alternative 1; however, the construction footprint would be larger under Alternative 3 since the

pier would be wider, requiring that more piles driven into river sediments and upland soils on the bank.

Effects from the No Action Alternative

Under the No Action Alternative, the existing structures would remain in place and no construction would occur. No demolition or use of soil-disturbing construction equipment would occur; however, maintenance dredging of the vessel berth area would continue to be required approximately every 2 years. Periodic maintenance dredging activities during operations would have minor, long-term effects to the river bottom sediments as described above.

3.5 Water Resources and Water Quality

Desktop studies were conducted to obtain data from regulatory agency websites, including the Federal Emergency Management Agency (FEMA) *National Flood Hazard Layer Viewer* and the USFWS *National Wetlands Inventory Wetlands Mapper*. A site visit was conducted on October 16, 2024.

3.5.1 Affected Environment

Surface Water

USCG SSD Owensboro is located on a bend of the Ohio River where the river current deposits floating debris. The shore under the pier contains cobbles and woody debris.

As required by Kentucky Revised Statute 151.250, stream construction permits are required for any development occurring in, along, or across a stream. Typical projects include, but are not limited to residential or commercial development, fill, stream bank stabilization, or impoundments. In addition, the Kentucky Division of Water's §401 Water Quality Certification Program is the Commonwealth's review and authorization of select federal licenses and permits. Any government agency planning to work in jurisdictional waters of the United States (WOTUS) is required to obtain a permit from the USACE under the CWA. Permitting through the USACE is discussed further under Wetlands and Waters of the U.S., below.

The gage height of the Ohio River at the Riverport monitoring station (03303502), located approximately 5 miles downriver from USCG SSD Owensboro ranges from around 20 to 40 feet depending on the weather conditions. The water level elevation at USCG SSD Owensboro averages 12 feet.

According to an EPA *Waterbody Report* (EPA 2024b), a 7.5-mile segment of the Ohio River that includes the Project Area is classified as 'impaired' (Category 5). Category 5 waterbodies are impaired or threatened by pollutant(s) for one or more designated uses, requiring an established total maximum daily load (TMDL). This segment does not support warm water aquatic habitat, fish consumption, or recreation-related beneficial uses. Water quality parameters do not meet state or tribal specific water quality standards and/or thresholds. The cause of impairment to warm water aquatic habitat is iron, dioxins, polychlorinated biphenyls (PCBs), and *Escherichia coli* (*E. coli*) bacteria (EPA 2024b). Probable sources contributing to impairment are unknown.

Stormwater and Wastewater Drainage

As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating water sources (including stormwater) that discharge pollutants into WOTUS. Although the USEPA has jurisdiction over the NPDES permit program, it has ceded jurisdiction to many authorized states, including Kentucky. Under this program, if more than 1 acre of land is disturbed during construction, the action must be permitted with KDEP under the General NPDES Permit for Stormwater Discharges Associated with Construction Activity. As part of this permit, the applicant would prepare a stormwater pollution prevention plan (SWPPP) that describes mitigation measures to be implemented, including erosion and sedimentation controls, during construction. During operations, industrial facilities, including military facilities, must comply with the NPDES permit program for all point source discharges of stormwater associated with industrial activities. The SSD Owensboro is not considered an industrial facility and does not discharge stormwater or wastewater requiring an industrial permit.

Groundwater

The city of Owensboro's main source of water comes from a deep underground aquifer (Ohio River alluvial aquifer) located on the northeast side of the city along State Route 144. Water is pumped from wells that connect to the Owensboro Municipal Utilities water supply. City water is treated by the Cavin Water Treatment Plant located approximately 0.9 miles from the Project Area (OMU 2024).

Floodplains and Flood Hazards

Floodplains are low-relief valley bottom lands created by periodic river flooding. The spatial extent of a floodplain is frequently described in terms of statistical flood frequency. The 100-year floodplain is land that has a 1 percent chance of flooding each year. According to the FEMA Flood Map Service Center, the Project Area is in a regulatory floodway and in an area with 0.2% - 1% annual chance flood hazard (**Figure 3-1**).

The Kentucky Energy and Environment Cabinet Division of Water is authorized through Kentucky Revised Statues Chapter 151 (KRS 151) to manage development in floodplains. Any type of development in, along, or across a stream requires either a General or Individual Floodplain Permit from the Division. In addition to the state floodplain development permits, local permits are also required. Kentucky statute gives local communities the authority to adopt higher standards than the statewide minimum requirements. These locally adopted higher standards benefit communities by reducing flood damage and the overall impact of floods. The USCG would consult the local Owensboro Floodplain Coordinator regarding community-specific requirements.

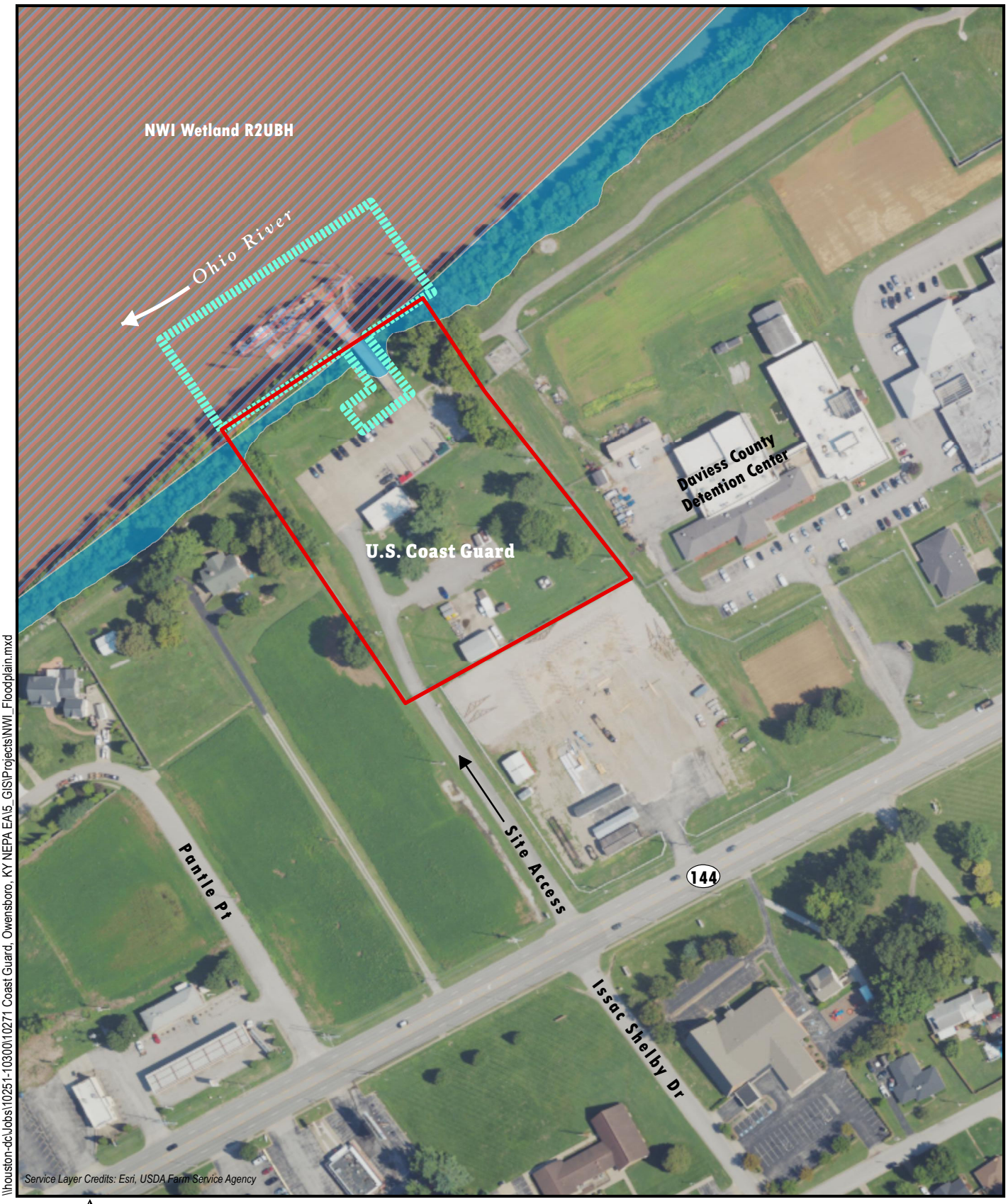
Wetlands and Other Waters of the United States

The USACE administers both Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the CWA. Section 10 prohibits the unauthorized obstruction or alteration, including temporary work activities, of any navigable WOTUS below the mean high water line of tidal waters. The removal of in-water structures below the mean high water line of the Ohio River requires authorization from the USACE under Section 10.

Section 404 of the CWA requires authorization from the Secretary of the Army, acting through the USACE, for discharge of dredged or fill material into all WOTUS, including wetlands. Discharges of fill material include, without limitation: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; property protection devices such as riprap or revetments; beach nourishment; and any other work involving the discharge of fill or dredge material. Any proposed fill would require a Nationwide Permit, Standard Permit, or Letter of Permission.

The existing pier and associated structures within the Project Area are partially located below the ordinary high-water mark of the Ohio River, which is a navigable WOTUS regulated by the USACE under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. The Ohio River at the Project Area has been mapped by U.S. Fish and Wildlife Service (USFWS) in the *National Wetlands Inventory* (NWI) as riverine deepwater habitat specifically coded as R2UBH or riverine (R), lower perennial (2), unconsolidated bottom (UB), permanently flooded (H) (**Figure 3-1**) (USFWS 2024a). This river system flows continuously, year-round and is defined as an open channel with low velocity, low-gradient, and a well-developed floodplain with sand or mud substrate. An “unconsolidated bottom” is a system where mud, silt, or similar fine particles cover at least 25 percent of the bottom, and where vegetation cover is less than 30 percent (USFWS 2024a). Oxygen deficits may sometimes occur (USFWS 2024a).

The shoreline from the water level to the ordinary high-water mark is characterized by medium to large boulders (riprap) atop clay, silt, and fine sand. The channel is well-defined with a steep embankment lacking riparian vegetation. Due to extreme fluctuations in water level, a significant amount of coarse woody debris and trash accumulates on the shoreline.



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GSI ENVIRONMENTAL

Project Area
Site

FEMA Flood Rate Insurance Map 21059C0137E
Effective Date July 31, 2024

Regulatory Floodway
Special Flood Hazard Areas With Base Flood Elevation (BFE) or Depth

Note: The only NWI Wetland is the Ohio River, R2UBH, Riverine.

NWI and Floodplain
USCG WCC Homeport and Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 3-1

3.5.2 Environmental Consequences

The following criteria were used to assess effects to surface water, groundwater, floodplains, and wetlands and other WOTUS:

- The alternative would have an adverse effect if it would threaten or damage unique hydrologic characteristics, reduce water availability, cause an exceedance of a TMDL, cause a change in the impairment status of a surface water, or interfere with the water supply of existing users. The adverse effect would be significant if it results in permanent effects. Effects would be less-than-significant if temporary.
- The alternative would have an adverse effect if it would substantially deplete groundwater supplies, interfere with groundwater recharge, or cause detrimental impairment to groundwater quality. The adverse effect would be significant if it results in permanent effects. Effects would be less than significant if temporary.
- The alternative would have an adverse effect if it would threaten or damage unique hydrologic characteristics, endanger public health by creating or worsening health hazard conditions, or violate established laws or regulations adopted to protect floodplains. The adverse effect would be significant if it results in permanent effects. Effects would be less than significant if temporary.
- The alternative would have an adverse effect if it would result in the placement of fill, structures, or other discharge in a WOTUS; alter a WOTUS (e.g., dredging or excavating); or permanently reduce or diminish the quality, functions, and values of WOTUS. The adverse effect would be significant if it results in permanent effects that substantially reduce the quality or quantity of WOTUS that cannot be offset by compensatory mitigation. Adverse effects would be less-than-significant if they are temporary and/or if permanent effects can be offset through BMPs or compensatory mitigation.
- The alternative would have a beneficial effect on WOTUS if it would increase or improve the quality or quantity of these resources.

Effects from Alternative 1

Surface Water

Alternative 1 would have minor adverse effects on local surface water quality during demolition of the existing pier deck, as well as during construction of a new pier deck, new pile driving, and cofferdam construction. These effects would be temporary and short term (less-than-significant) and could include the following:

- Increased turbidity levels associated with disturbance of sediments during pile driving and cofferdam construction. Disturbance of sediments could mobilize bound contaminants.
- Minor increase in risk of fuel and oil spills into the Ohio River from the barge, work boat, and/or other equipment used during demolition and construction.

The USCG's standard contract provisions for construction projects require use of BMPs such as those listed in **Section 4.0** to avoid and minimize potential adverse effects on surface water quality.

Prior to project commencement, the sediments at USCG SSD Owensboro would be sampled and tested for petroleum, PCBs, and polycyclic aromatic hydrocarbons (PAHs). Alternative 1 would have minor adverse effects on surface water quality if pile driving and cofferdam construction disturbs contaminated river sediments. As indicated in **Section 4.0**, pile driving and cofferdam construction methods would minimize turbidity and use of a turbidity curtain would minimize the area of turbidity and support more rapid settling of sediments out of the water column and back onto the substrate. Sediment sampling results would determine the final disposal of any sediments that are captured. All activities would conform to state and federal water quality regulations.

The demolition and construction of structures would have minor short-term adverse effects due to vibratory extraction and pile driving since it would temporarily mobilize sediments around the piles. Vibratory pile removal and driving, versus excavation of the piles, generate less sediment disturbances and turbidity during demolition and construction, respectively. BMPs described in **Section 4.0** would be utilized to minimize the impact of demolition and construction.

Under Alternative 1, periodic maintenance dredging (every 5 years) would be required within the vessel berth area resulting in minor, short-term and localized effects to surface water.

Stormwater and Wastewater Drainage

Limited construction disturbance to upland soil would result from upgrading utilities (digging / trenching). The USCG would not be required to obtain a construction stormwater permit or prepare a SWPPP given less than 1 acre would be disturbed as part of project activities. BMPs described in **Section 4.0** would be utilized to minimize and prevent stormwater from reaching the river. Upon completion of utility work, soil would be replaced and graded such that there would be no change to stormwater runoff pathways. If equipment is stored on the Site, it would be stored on paved areas and inspected daily for fluid leaks. Utility upgrades would have minor short-term adverse effects to stormwater from digging or trenching in upland soils; however, BMPs would be implemented to prevent stormwater runoff into the Ohio River.

Groundwater

Preliminary evaluation of the existing utilities indicates that water and sewage are adequate and would not require upgrading. Groundwater resources would not be affected by Alternative 1.

Floodplains and Flood Hazards

Since the Project Area is in a regulatory floodway, the Proposed Action cannot increase the water surface elevation more than the designated height. Under Alternative 1, there would be no significant effects on floodplains or flood hazard risk. The existing pier deck would be replaced within the special flood hazard area and would be designed in accordance with local floodplain regulations.

Wetlands and Other Waters of the United States

Alternative 1 would take place within the waters of the Ohio River but would not adversely affect aquatic substrates in the long term. Short term disruption of the substrate would result during removal, replacement, and construction of piles and in-channel infrastructure. Project construction would comply with any USACE permit provisions. The USCG's standard contract provisions for construction projects also require the use of BMPs, such as those discussed in **Section 4.0**, to avoid and minimize potential adverse effects to wetlands and other WOTUS.

Project activities would result in sediment resuspension following construction; however, relative to the ongoing disturbance associated with the Site (e.g., vessel traffic, maintenance dredging), effects to water quality would be minor, short-term, and localized. The USCG would initiate pre-application coordination with USACE to determine the type of permit required and file the required documentation. Possible permit conditions are determined after the required permit documentation is filed. BMPs are subject to change based on coordination with regulating agencies including USACE.

Effects from Alternative 2

Effects to water resources and water quality under Alternative 2 would be similar to those described for Alternative 1. Additionally, there would be increased construction disturbance to the aquatic substrate given the pier would be extended by 25 feet. This increase in temporary aquatic substrate disturbance would be partially offset by the elimination of long-term maintenance dredging relative to the current operation (under the No Action Alternative) and Alternatives 1 and 3. Over time, operations would likely result in a beneficial effect on water resources and water quality due to a decrease in long-term aquatic substrate disturbance under Alternative 2.

Effects from Alternative 3

Effects to water resources and water quality under Alternative 3 would be similar to those described for Alternative 1, but with increased construction disturbance to the aquatic substrate given the pier would be widened by 20 feet requiring additional support piles. Consistent with Alternative 1, the vessel berth area would require periodic maintenance dredging during operations. The effects to water resources and water quality under Alternative 3 would be short-term, minor, and localized.

Effects from the No Action Alternative

Under the No Action Alternative, debris and sediment accumulation would continue to occur. Ongoing debris removal and annual maintenance dredging in the vessel berth area would be required to ensure navigation and operation within the Project Area. Under the No Action Alternative, the 150 psf pier deck would remain and no demolition activities or pier deck replacement construction would occur. Periodic and less than significant effects to water quality and WOTUS would continue to result from periodic maintenance dredging.

3.6 Biological Resources

3.6.1 Affected Environment

This section describes biological resources potentially present at or near the Project Area, with special attention focused on federally listed, regulated or managed species and habitat.

Federally Listed Species and Critical Habitat

The ESA of 1973 provides the regulatory framework for protecting the long-term survival of species at risk of extinction and is implemented by the USFWS and National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). The ESA provides federal protection for endangered and threatened species of animals and plants and their associated habitats. Section 7(a)(2) of the ESA directs all federal agencies to use their authorities to advance the objectives of the ESA and to ensure that federal actions do not jeopardize the continued existence of federally listed species or adversely modify or destroy designated critical habitat. The Fish and Wildlife Coordination Act directs the USFWS to

investigate and report on proposed federal actions that affect any stream or other body of water and to provide recommendations to minimize effects on fish and wildlife resources.

An official species list was obtained from the USFWS *Information for Planning and Consultation* (IPaC) project planning tool on October 14, 2024, and updated on December 17, 2024, to identify threatened and endangered species that may occur in the proposed project location, and/or may be affected by the Proposed Action. **Table 3-1** identifies those species that may be present within the areas directly and indirectly affected by the proposed Project based on consultation with a local representative of the USFWS, review of the formal species list from the USFWS (USFWS 2024b), and consideration of the life history and habitats of potential species. There are no designated Critical Habitat, Bat Habitat, Protected Areas, or Areas of Significant Biodiversity as defined by USFWS within the Project Area.

The species listed in **Table 3-1** were also considered in the effects analysis for the proposed Project. Agency correspondence is provided in **Appendix A**.

A habitat assessment was conducted for threatened and endangered species using site visit observations, literature and data from USFWS species fact sheets, USFWS species status review documents, Kentucky Nature Preserves Commission (KNPC), NRCS, and KDFWR. The following subsections describe species-specific habitat and ecological requirements and geographic range, if available, for threatened and endangered species with the potential to occur within the Project Area.

Table 3-1. Federally Listed Species Potentially in the Project Area

Scientific Name	Common Name	Federal Status [1]	Potential Occurrence in Project Area?
Plethobasus cyphyus	Sheepnose mussel	E	Yes
Quadrula cylindrica cyclindrica	Rabbitsfoot mussel	T	Yes
Myotis grisescens [2]	Gray bat	E	Yes
Myotis sodalist [2]	Indiana bat	E	Yes
Perimyotis subflavus	Tricolored bat	PE	Yes

Source: USFWS *Information for Planning and Consultation* (IPaC) (USFWS 2024b), OKNP (2024).
[1] USFWS species listing status on the federal lists of endangered and threatened wildlife and plants, warranting protection under the ESA. The listing status categories include: Endangered (E), Threatened (T), Candidate (C), Proposed Endangered (PE), and Experimental Population - Non-essential (EXPN).
[2] Following USFWS directive, this species only needs to be considered in an effects analysis if the Project Area includes 'potential' habitat.

Rabbitsfoot Mussel

Rabbitsfoot mussels primarily inhabit gravel and sand substrates in small to medium sized streams and some larger rivers. They typically occur in shallow waters along streambanks and adjacent runs and shoals with reduced water velocity (USFWS 2024c). Individuals may also occupy deep water runs, having been reported in 9-12 feet of water. They seldom burrow in substrates but lie on their side at soil surface. Rabbitsfoot are a sedentary species with small, seasonal movements toward shallower water during brooding period (May to late August). According to the *Kentucky Nature Preserves Commission Kentucky Mussel Atlas* (Haag & Cicerello 2016), the distribution of the rabbitsfoot included Daviess County between 1990 and 2015.

Sheepnose Mussel

Sheepnose mussels are restricted to main-channel habitats in medium to large stream systems, typically within shallow shoal habitats with moderate to swift currents. This species prefers a mixture of coarse sand, gravel, and clay substrate. They occupy a range of depths from a riffle to deep runs that exceed 20 feet (USFWS 2022a). According to the *Kentucky Nature Preserves Commission Kentucky Mussel Atlas* (Haag & Cicerello 2016), the distribution of the sheepnose included Daviess County between 1990 and 2015. The Project Area is within an approximate 80 river mile stretch of the Ohio River that is considered to have extant populations based on observations from 2000 to 2020 (USFWS 2022a).

No critical habitat has been designated for the sheepnose mussel. Critical habitat has been designated for the rabbitsfoot mussel. However, the Project Area does not overlap with designated critical habitat.

Bats

The IPaC query returned a list of two listed endangered and one proposed endangered bat species with potential to occur within the Project Area (gray bat, Indiana bat and tricolored bat, respectively). Of these species, the endangered gray bat and Indiana bat, "should be considered for an effects analysis only if the Project Area includes potential habitat" (USFWS 2024b). Thus, a habitat assessment was conducted using *General Project Design Guidelines for Indiana Bat and Three Species* (USFWS 2024d) to determine whether potential habitat exists within the Project Area. Potential habitat for bat species includes:

- Caves, rock shelters, abandoned mine portals, or similar features
- Buildings, bridges, and culverts
- Forested habitat
- Streams, lakes, rivers, ponds, and wetlands

The Project Area contains a pier and a small component of forested riparian vegetation that are potential habitat for bat species. Given that the Ohio River shoreline is included in the Project Area, all three bat species (gray, Indiana, and tricolored) are included in a detailed effects analysis in this EA.

Gray bats utilize rock shelters or karst features during the summer for roosting and forming maternity colonies (USFWS 2024d). Approximately 95 percent of the entire known population hibernates in nine known caves (International Union for Conservation of Nature [IUCN] 2024a). Winter roosts are in deep vertical caves with domed halls (IUCN 2024a). Summer caves are nearly always located within 1 km (approximately 0.6 miles) of a river (IUCN 2024a). Though this species does not roost in trees, they commonly utilize forested corridors along streams (USFWS 2024d). However, they do not feed in areas along rivers or reservoirs where the forest has been cleared (IUCN 2024a). Gray bats forage on insects over larger streams, rivers, lakes, and ponds. Forested areas along the banks of streams and lakes provide important protection for adults and young, which take shelter in forest areas near the entrance of cave roosts.

The tricolored bat was proposed for listing by the USFWS as an endangered species in 2022. Tricolored bats winter in caves, rock crevices, and abandoned mines. Where caves are sparse, they are often found roosting in road-associated culverts (IUCN 2024b). Tricolored bats hibernated in more caves and abandoned mines than any other cave-hibernating bat species in eastern North America (USFWS 2021). In the spring, summer, and fall, they are found in forested habitats where they roost in tree foliage, primarily in live or recently dead deciduous hardwood

trees (IUCN 2024b). Tricolored bats are often observed in open woods near the edge of water as well as over open water (IUCN 2024b). They emerge early in the evening and most commonly forage over waterways and forest edges at treetop level or along the ground (USFWS 2021). The Project Area is not within ½-mile of a known tricolored bat hibernaculum nor within a ¼-mile of a culvert known to be occupied by the species (USFWS 2024b).

The Indiana bat winter in caves, underground mines, or other similar structures (USFWS 2024d). They occasionally roost in buildings, bridges, culverts, and other manmade structures (USFWS 2024d). In the summer, Indiana bats utilize a variety of forested habitats, including riparian forests, bottomlands, and uplands, for both summer foraging and roosting (USFWS 2024d). Females give birth and raise their young in trees occupied by maternity colonies. In the fall, this species occupies the forested habitat around the hibernacula where they mate (USFWS 2024d). Suitable roost trees are trees greater than 5 inches diameter at breast height (DBH), either living or dead, and exhibit any of the following characteristics: exfoliating bark, broken limbs, broken tops, cracks, and crevices (USFWS 2024d). Dead trees are preferred roost sites. Indiana bats forage on insects over larger streams, rivers, lakes, and ponds (USFWS 2024d). The Project Area is not within ½-mile of a known Indiana bat hibernaculum.

No critical habitat has been designated for the gray bat or tricolored bat. Critical habitat has been designated for the Indiana bat; however, the Project Area does not overlap with critical habitat.

Aquatic Wildlife and Habitat

The Ohio River is essentially a series of pools connected by high-lift locks and dams installed for navigational purposes. Construction of the dams has resulted in deeper, slower moving water and diverse fish assemblages adapted to warm water environments. Habitat diversity along the Ohio River results in species diversity, with over 159 species found throughout the river and its tributaries (ODNR 2024).

The freshwater habitat at the Project Area is influenced by large fluctuations in water levels, strong currents, accumulation of coarse woody debris along the shore, and frequent disturbance from current operational activities. Sport fish species inhabiting the Ohio River – Central portion, encompassing the Project Area include striped bass (*Morone saxatilis*), white bass (*Morone chrysops*), yellow bass (*Morone mississippiensis*), largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), spotted bass (*Micropterus punctulatus*), blue catfish (*Ictalurus furcatus*), channel catfish (*Ictalurus punctatus*), flathead catfish (*Pylodictis olivaris*), sauger (*Sander canadensis*), walleye (*Sander vitreus*), and crappie (*Pomoxis* spp.). Drift accumulation often creates preferential habitat for fish.

The NMFS regulates Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act (2007), which is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Based on a query of the NOAA *Inland EFH Mapper* (NOAA 2020), no areas of EFH or Habitat Areas of Particular Concern (HAPCs) were identified in the vicinity of the proposed Project Area.

Migratory Birds and Raptors

A “migratory bird” means any bird, whatever its origin and whether or not raised in captivity and is listed in 50 CFR 10.13. All native birds occurring in the United States as the result of natural biological or ecological processes or was previously listed as a species or a member of a family protected by one of the four international treaties or their amendments, are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (FR 2023). Executive Order 13186 directs federal agencies to protect migratory birds by integrating bird conservation principles, measures, and practices into projects.

Bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are further protected under the Bald and Golden Eagle Protection Act (BGEPA) of 1940. The Act prohibits anyone, without a permit issued by the Secretary of Interior, from "taking" (i.e., pursue, shoot, wound, kill, collect, or disturb) bald or golden eagles, including their parts (e.g., feathers), nests, or eggs. In addition to immediate effects, this Act covers effects that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment (USFWS 2024e).

Executive Order 13186 (*Migratory Bird Conservation*) obligates all federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Pursuant to the MBTA and BGEPA, the Proposed Action will not result in the take of migratory birds, bald or golden eagles or the parts, nests, or eggs of such bird.

The IPaC query returned a list of 13 migratory birds and raptors with potential to occur within the Project Area (**Table 3-2**). These species were included because they were identified by USFWS as being "of particular concern either because they occur on the USFWS *Birds of Conservation Concern list* (BCC) or warrant special attention in your project location," and are a subset of all migratory birds.

Table 3-2. Migratory Birds and Raptors with Potential to Occur in Project Area

Scientific Name	Common Name	Nesting Habitat	Breeding Season
Haliaeetus leucocephalus	Bald Eagle	Trees in forested areas adjacent to large bodies of water, away from heavily developed areas	Sep 1 to Jul 31
Dolichonyx oryzivorus	Bobolink	On the ground in open areas, meadows, hayfields, grasslands.	May 20 to Jul 31
Chaetura pelagica	Chimney swift	In buildings, hollow trees, caves in rural or urban areas.	Mar 15 to Aug 25
Spizella pusilla	Field sparrow	On the ground in open areas, agricultural fields, fencerows, roadsides.	Mar 1 to Aug 15
Geothlypis formosa	Kentucky warbler	On the ground in hardwood forests with dense understory near streams. Require large tracts of forest cover (>1,200 acres).	Apr 20 to Aug 20
Sternula antillarum antillarum	Least tern	On the ground, on sandy beaches or islands on coastlines and rivers. Sometimes nest in gravel pits, dredge spoil, or mudflats.	Apr 25 to Sep 5
Tringa flavipes	Lesser yellowlegs	On the ground in brackish wetlands, mudflats, meadows.	Breeds elsewhere
Setophaga discolor	Prairie warbler	In shrubs in open canopies, ranging from pine forests, scrub oak barrens, regenerating forests, and borders of forests and prairie.	May 1 to Jul 31
Protonotaria citrea	Prothonotary warbler	In tree cavities in flooded bottomland forests, wooded swamps, and forests near streams. Avoid forest patches smaller than about 250 acres or forest borders less than 100 feet wide.	Apr 1 to Jul 31
Melanerpes erythrocephalus	Red-headed woodpecker	In tree cavities in deciduous woodlands, river bottoms, burned areas, clearings, farmland, and forest edges. Nomadic species, often nesting in different areas each year.	May 10 to Sep 10

Scientific Name	Common Name	Nesting Habitat	Breeding Season
Euphagus carolinus	Rusty blackbird	In trees in wet forests near wetlands, bogs, and beaver ponds.	Breeds elsewhere
Calidris pusilla	Semipalmated sandpiper	On the ground in low tundra near marshes or ponds.	Breeds elsewhere
Hylocichla mustelina	Wood thrush	In trees in mature deciduous and mixed forests with moderate understory near water. Nest less frequently in fragmented forests or suburban parks.	May 10 to Aug 31

Source: USFWS IPaC (2024b), Cornell University (2024)

The Cornell University Lab of Ornithology *eBird* data mapping tool was used to view the exact locations of where scientists or the general public have sighted birds listed in **Table 3-2** potentially in or near the Project Area. According to the eBird database, only a bald eagle has been observed within ½-mile of the Project Area. The observation was made in 2020, approximately 0.4 miles west (downriver) along the south shore of the Ohio River.

Terrestrial Vegetation

The Project Area is within Major Land Resource Area (MLRA) 120A – Kentucky and Indiana Sandstone and Shale Hills and Valleys, Southern Part. Ecological regions, or ecoregions, are large areas of land and water that share similar physical and biological characteristics, such as climate, soil, vegetation, and wildlife. Ecoregions are often used to understand the relationship between biotic and abiotic factors of the environment to help guide conservation efforts. The Project Area is within the Interior River Valleys and Hills USEPA level III ecoregion, Wabash-Ohio Bottomlands Level IV ecoregion (Woods et al. 2002). The Wabash-Ohio Bottomlands ecoregion is composed of nearly level, poorly drained floodplains and undulating terraces. Land use is affected by seasonal high-water tables and localized flooding.

According to the NRCS *Ecological Site Description Tool* (EDIT), the dominant vegetation within the area includes American sycamore (*Platanus occidentalis*), eastern cottonwood (*Populus deltoides)*, cherrybark oak (*Quercus pagoda)*, bitternut hickory (*Carya codiformus*), northern spicebush (*Lindera benzoin*), paw paw (*Asimina triloba*), giant cane (*Arundinaria gigantea*), grape (*Vitis* spp.), and Virginia creeper (*Parthenocissus quinquefolia*) (NRCS 2024a).

Terrestrial vegetation at the Site is primarily managed (mowed, irrigated) lawn with isolated mature, deciduous trees. A narrow (approximately 60 feet wide) forested riparian buffer measuring approximately ½-acre in size spans the northern boundary of the Site along the Ohio River. Based on a site visit on October 16, 2024, vegetation adjacent to the pier includes a mix of mature and young trees and shrubs including silver maple (*Acer sacchainum*), American sycamore, and sugar hackberry (*Celtis laevigata*). American burnweed (*Erechtites hieraciifolius)* and various native and nonnative grasses are present in the understory.

Noxious Weeds, Aquatic Nuisance Species, and Non-Native Invasive Species

Noxious weeds, invasive and non-native species are species that are highly competitive, persistent, and spread easily. Weeds typically establish and infest disturbed sites, along roadsides and waterways. Changes in plant community composition from native species to non-native species can alter fire regimes, degrade water quality, increase soil erosion, and negatively affect habitat quality, biodiversity, and ecosystem structure and function.

The USCG is required to limit invasive species on USCG-managed property in line with the Invasive Species Council's *Invasive Species Management Plan, Invasive Species*, EO 13112, and *Safeguarding the Nation from the Impacts of Invasive Species*, EO 13751 (COMDTINST 5090.3A). The Federal Noxious Weed Act of 1974 (7 US Code 2801-2813) as amended by Sec. 15, *Management of Undesirable Plants on Federal Lands 1990*, requires that each federal agency:

1) Designate a lead office and person trained in the management of undesirable plants;
2) Establish and fund an undesirable plant management program;
3) Complete and implement cooperative agreements with State agencies; and
4) Establish integrated management systems to control undesirable plant species.

The Kentucky Exotic Pest Plant Council (KY-EPPC) rates non-native species by the existing or potential threat posed by a species to native plant communities in Kentucky. According to KY-EPPC (2015), the invasive plant categories are as follows:

Severe Threat – An exotic plant species which possess characteristics of invasive species and spread easily into native plant communities and displace native vegetation; includes species which are or could become widespread in Kentucky.

Significant Threat – Exotic plant species which possess some characteristics but have less impact on native plant communities; may have the capacity to invade natural communities along disturbance corridors, or to spread from stands in disturbed sites into undisturbed areas but have fewer characteristics of invasive species than 'Severe Threat' species.

Lesser Threat – Exotic plant species which seem to principally spread and remain in disturbed corridors, not readily invading natural areas; include select agronomic weeds.

The KDFWR list of nuisance species (2024a), the KY-EPPC species list (2015), and the Natural Resources Conservation District *Invasive Species Advisory List* (2013) were used to determine species with the potential to occur. **Table 3-3** lists the non-native, invasive plant species that have been observed in Daviess County.

Table 3-3. Invasive Plant Species Observed in Daviess County, Kentucky

Scientific Name	Common Name	Growth Form	Threat Category [1]
Ailanthus altissima	Tree-of-heaven	Tree	Severe
Achyranthes japonica	Japanese chaff flower	Forb	Severe
Arthraxon hispidus	Hairy jointgrass	Graminoid	Severe
Daucus carota	Queen Anne's lace	Forb	Significant
Elaeagnus umbellata	Autumn olive	Shrub	Severe
Euonymus alatus	Burning bush	Shrub	Severe
Festuca arundinacea	Kentucky fescue	Graminoid	Severe
Ipomoea hederacea	Ivy-leafed morning-glory	Forb	Lesser
Ipomoea purpurea	Purple morning-glory	Forb	Significant
Lamium amplexicaule	Henbit	Forb	Lesser
Lespedeza cuneata	Sericea lespedeza	Forb	Severe
Lonicera japonica	Japanese honeysuckle	Shrub	Severe

Scientific Name	Common Name	Growth Form	Threat Category [1]
Melilotus alba	White sweet clover	Forb	Severe
Melilotus officinalis	Yellow sweet clover	Forb	Severe
Morus alba	White mulberry	Shrub	Significant
Najas minor	Brittleleaf naiad	Forb	Significant
Ornithogalum umbellatum	Star-of-Bethlehem	Forb	Significant
Poa pratensis	Kentucky bluegrass	Graminoid	Significant
Potamogeton crispus [2]	Curly pondweed	Forb	Significant
Rosa multiflora	Multiflora rose	Shrub	Kentucky Noxious Weed
Stellaria media	Chickweed	Forb	Severe

Source: USDA *PLANTS* database (2024a), EDDMapS (2024), Kentucky Fish and Wildlife Resources, Kentucky Exotic Pest Plant Council (2024).
Note: This species list is not exhaustive, but a product of a thorough literature review using the sources listed above.
[1] Invasive plant category according to the Kentucky Exotic Pest Plant Council.
[2] Species is an aquatic nuisance species (ANS) in Kentucky.

A desktop review was conducted using the *Early Detection & Distribution Mapping System* (EDDMapS 2024) and the USDA NRCS *PLANTS* database (NRCS 2024a) to determine if there have been any documented noxious weed species in the Project Area. According to these sources, there are no documented noxious weeds within the Project Area. There were no noxious weeds observed during the site visit in October 2024.

Aquatic nuisance species (ANS) are non-native, aquatic species that have moved outside their native range and threaten the diversity or abundance of native species, the ecological stability of waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters. Typically, an invasive species becomes a “nuisance” due to their disruption of the environments where they are introduced. According to the KDFWR, eight ANS inhabit aquatic systems in Kentucky (KDFWR 2024b) of which three have been observed within a 5-mile radius of the Project Area boundary (**Table 3-4**).

Table 3-4. Aquatic Nuisance Species (ANS) with the Potential to Occur

Scientific Name	Common Name	Lifeform	Observed within Buffered Project Area [1]
Ctenopharyngodon idella	Grass carp	Fish	
Dreissena polymorpha	Zebra mussel	Mollusk	X
Hypophthalmichthys molitrix	Silver carp	Fish	X
Hypophthalmichthys nobilis	Bighead carp	Fish	X
Mylopharyngodon piceus	Black carp	Fish	
Myriophyllum spicatum	Eurasian watermilfoil	Aquatic Plant	
Neogobius melanostomus	Round goby	Fish	
Potomogeton crispus	Curly-leaf pondweed	Aquatic Plant	

Source: Kentucky Department of Fish and Wildlife Resources (2024b), USGS *Nonindigenous Aquatic Species* (NAS) database (2024b).
[1] Species has been observed within a 5-mile buffer of the Project Area according to USGS *Nonindigenous Aquatic Species* (NAS) database tool.

In Kentucky, Eurasian watermilfoil occurs in some northern counties along the Ohio River (KDFWR 2024b). According to USGS *Nonindigenous Aquatic Species* web application (USGS 2024b) and University of Georgia (EDDMapS 2024), there have been no observations in Daviess County in the Ohio River. The four Invasive carp species in Kentucky include silver carp, bighead carp, black carp, and grass carp. In Kentucky, silver, bighead, and grass carp are established throughout the Ohio river and many of its tributaries (KDFWR 2024b).

3.6.2 Environmental Consequences

Effects on biological resources would be considered significant if project-related actions were to result in the temporary or permanent loss of any sensitive or protected habitat or in the direct loss or damage of any sensitive resource. Effects would also be considered significant if the action were to violate the ESA; Fish and Wildlife Coordination Act; Magnuson-Stevens Fishery Conservation and Management Act; CWA; MBTA; or other federal, state, or local laws protecting biological resources.

Effects from Alternative 1

Federally Listed Species

An informal consultation letter was prepared and submitted to USFWS on January 10, 2025, regarding potential effects to federally listed species associated with the Proposed Action. After requesting and receiving additional information on February 24, 2025, USFWS issued its concurrence on February 26, 2025. Correspondence with the USFWS is provided in **Appendix A**. General effects to those species with the potential to occur in the Project Area are described below.

Sheepnose and Rabbitsfoot Mussels

In-channel activities in the Ohio river may potentially directly or indirectly affect freshwater mussels, if present. Construction or disturbance to uplands in watersheds containing mussel species can degrade streams and rivers by increasing sedimentation, introducing pollutants, and/or altering riparian areas. Since freshwater mussels are sedentary filter feeders, they are particularly susceptible to changes in water quality and require relatively silt-free substrates. In-channel activities increase siltation which may smother mussels, choke out food sources, or harm their host fish. According to soil boring logs included in the original site plans (1992), the top 50 feet of soil (below ground surface) is primarily composed of silt and fine grain sand. Soil borings were located between 50 to 150 feet from the edge of water within the Project Area and are an approximate representation of existing conditions at the pier. Moreover, due to previous, existing or repeated disturbance of the water and soil from vessel and operational activities (e.g., previous construction activities, maintenance dredging), it is unlikely that suitable habitat for freshwater mussels would be present within the vessel berth area and debris deflector area. Refer to **Section 3.4** for a description of soil and geology present in the Project Area.

Based on historical observations, rabbitsfoot and sheepnose mussels are thought to be extant to the section of the Ohio River that contains the Project Area. However, as previously described, the soil boring logs located around the failed debris deflector all have multiple feet of silt and sand which would not be considered suitable habitat. Additionally, the fallen debris barrier structure has caused some disturbance to the riverbed which would likely have deterred mussels from inhabiting the area.

On February 26, 2025, USFWS concurred, pursuant to Section 7 of the ESA, that the Proposed Action May Affect, but is not Likely to Adversely Affect, mussels.

The USCG would implement BMPs discussed in **Section 4.0** to control sediment, such as using containment booms around equipment, silt fences for shoreline disturbance, turbidity barriers in water, and water intake-structures/fittings on equipment, as necessary.

Bats

The three federally listed bat species with potential to occur within the Project Area are cave-hibernating species that utilize forested habitat for foraging and roosting. The proposed Project Area does not contain preferred or suitable wintering habitat for the Indiana bat, gray bat, or tricolored bat due to the lack of cave or karst features or large-diameter standing dead trees. Further, continuous, forested, riparian habitat is sparse.

The USFWS defines suitable summer roosting habitat as forested patches with trees of 5-inch DBH or larger. Early successional habitat with small diameter trees may also be used as foraging habitat. The Project Area and adjacent land is comprised of a narrow (approximately 60 feet wide), linear feature of riparian forest comprised of mixed age (size class), live deciduous trees and shrubs totaling less than 1-acre in size. Trees of 5-inch DBH are a component of the riparian vegetation within the area surrounding the Project Area. Most of the Project Area consists of maintained (e.g., mowed) lawn with large-diameter isolated, planted trees.

Yellow Bank Island, located approximately 0.5-mile northwest of the proposed Project Area in the Ohio River, is the nearest continuous, densely forested area (**Figure 1-1**). Yellow Bank Island is likely preferential habitat relative to the sparsely vegetated Project Area and location within a developed industrial area. According to the USFWS *Range-wide Indiana Bat & Northern Long-eared Bat Survey Guidelines* (2024), trees found in highly developed urban areas are extremely unlikely to be suitable habitat (USFWS 2024f). Adverse effects to potential roosting habitat are not anticipated because tree removal is not an activity associated with the proposed Project.

Where caves are sparse, Indiana bats and tricolored bats are occasionally found roosting in road-associated culverts or other manmade structures (e.g., bridges) as alternatives to preferred roosting habitat. These structures are considered potential summer habitat for Indiana bats (USFWS 2024f). The Proposed Action, including construction/expansion of the moorings, gangway, and pier could directly impact bats potentially utilizing these structures as roosting sites. Further, highly developed urbanized areas generally devoid of native vegetation (including isolated trees surrounded by expansive anthropogenic development) are considered unsuitable habitat (e.g., industrial buildings, parking lots) (USFWS 2024f). The USCG would implement BMPs discussed in **Section 4.0** and visually inspect the understory of the pier and structures prior to demolition to minimize potential effects on bat species. According to bat survey guidelines (USFWS 2024f), bridge and culvert surveys are an acceptable survey method year-round. Direct effects to bats are unlikely to occur.

Indirect effects to bats, such as noise disturbance from construction activities, are unlikely to cause adverse effects because bats are nocturnal, meaning they are most active at night and sleep during the day. Construction and other Project activities would occur during daylight hours. Given the current land use and operational activities at the Site (e.g., loading and unloading of buoys on vessels, boat and pier traffic, periodic maintenance dredging), disturbance from the Proposed Action would be negligible, temporary, and localized relative to existing conditions and ongoing activities. Indirect effects to bats would be mitigated through BMPs discussed in **Section 4.0**.

On February 26, 2025, USFWS concurred, pursuant to Section 7 of the ESA, that the Proposed Action would have No Effect on bat species.

Aquatic Wildlife and Habitat

While in-channel ground disturbance and increased vessel traffic associated with the Proposed Action would result in a temporary disturbance to aquatic wildlife due to human presence, noise, and increased turbidity, this would not present any significant effects when taken into consideration the industrialized nature of the Site and heavy use of the surrounding waters. Although drift is abundant in the Project Area and is considered a critical component for riverine fisheries, fish are highly mobile and capable of temporarily avoiding affected areas, occupying more favorable habitats nearby.

The removal and addition of piles and construction of cofferdams would permanently alter benthic habitat through the removal of aquatic substrate from the proposed Project Area, potentially resulting in the loss of benthic organisms and early life stages of fish (eggs, larvae); however, benthic species are not anticipated to be present in large densities due to existing disturbances and the small-scale of the Project Area relative to the Ohio River. No submerged aquatic vegetation is known to be present in the Project Area due to the unconsolidated bottom (refer to **Section 3.5.1**) and frequent disturbances. Further, a strong current creates eddy effects at the Project Area, resulting in poor structured benthic habitat or attachment areas for submerged aquatic vegetation.

Soil at the Project Area is composed of clay, silt, and fine sand (**Section 3.4.1**). Excess fine sediment, such as that produced in high-traffic areas, reduces visibility which in turn limits the foraging ability of fishes and causes declines in primary production due to low sunlight penetration (Hubert & Quist 2010). Warmwater fisheries typically spawn in shallow, vegetated habitats with reduced velocity. The Project Area is unlikely to contain preferred spawning habitat for fish species. The USCG would implement BMPs to minimize or reduce potential effects to benthic organisms and their habitat, as discussed in **Section 4.0**. Effects to benthic organisms and early life stages of fish would be minor, long-term, and localized.

Migratory Birds and Raptors

Construction activities within the Project Area due to implementation of Alternative 1could potentially result in destruction of native nests or disturb the behavior of migratory birds and raptor species. Project activities would result in temporary disturbance due to the presence of humans and by creating noise and dust. The USCG would implement BMP's (**Section 4.0**) to minimize or reduce the effects of Project activities on migratory birds and raptors and their habitat. Effects from noise and dust would be negligible, temporary, and localized relative to the existing operational activities at the Site.

Migratory birds and raptors are most susceptible to anthropogenic pressure during their breeding (nesting) season. Of the 10 species that are known to breed in the area (**Table 3-2**), 5 species nest in trees or tree cavities, 4 nest on the ground, and 1 nests in chimneys. The shore of the Project Area is steep and comprised of large cobbles and boulders and is densely covered in drifted course woody debris from wave action and water level fluctuations. Suitable ground nesting sites within the Project Area are lacking. Potential tree nesting habitat exists within the narrow, forested border along the shoreline. Tree or vegetation removal will likely occur as part of the pier deck widening. USCG would implement BMPs prior to construction and demolition activities, such as pre-clearance nest surveys, to avoid potential effects to birds. If any nests are confirmed during pre-construction surveys on the pier or shoreline, work would be delayed within the established buffer until the birds have fledged. Direct effects to migratory birds and raptors and their habitat would be negligible, temporary, and localized.

Terrestrial Vegetation

A minor amount of terrestrial vegetation disturbance would occur due to pier deck widening and digging/trenching to upgrade utilities adjacent to the pier deck. The vegetation that would be affected includes non-native ornamental grasses that are mowed regularly during the growing season. Some small diameter (less than 5-inch DBH) sugar hackberry trees would likely require removal prior to pier construction. Relative to the extensive adjacent riparian corridor along this stretch of the Ohio River, the potential removal of a few trees during construction under Alternative 1 would be negligible, long-term, and localized.

Noxious Weeds, Aquatic Nuisance Species

Inland and in-channel surface disturbance, increased vessel traffic, and in-channel activities within the Project Area could increase the potential for spread and establishment of noxious weeds, invasive and non-native species, or aquatic nuisance species. The USCG has multiple responsibilities that involve invasive species. The USCG works with other agencies to develop and enforce international fisheries and maritime agreements, including those concerning ballast water management (USDOI 2017). The USCG has long had a program in place to disseminate information on aquatic nuisance species, and on methods to reduce or prevent their spread in ballast water, and to encourage compliance with the previous ballast water management requirements and guidelines under 33 CFR 151.

Vegetation and landscaping on the Site and within the Project Area are actively managed by the USCG. This includes mowing, weed management, and physical removal of debris accumulation on the shoreline. Site management reduces the risk of noxious weed establishment and spread. Effects from noxious weeds, invasive and non-native species, and aquatic nuisance species would be negligible, short-term, and localized. The potential effects from Alternative 1 would be negligible relative to current operational activities (e.g., vessel traffic) in the Project Area.

Effects from Alternative 2

The effects to biological resources under Alternative 2 would be similar to those described for Alternative 1, but with increased construction disturbance to the aquatic substrate given the pier would be extended 25 feet. Any increase in aquatic substrate disturbance would be partially offset by the elimination of long-term periodic maintenance dredging relative to the current operation (under the No Action Alternative) and Alternatives 1 and 3. Therefore, operations under Alternative 2 would likely result in a decrease in long-term periodic aquatic substrate disturbance.

Overall, with implementation of BMPs during construction described in **Section 4.0**, effects to federally listed species and migratory birds would be minimized. Consistent with Alternative 1, effects from noxious weeds, invasive and non-native species, and aquatic nuisance species would be negligible, short-term, and localized. It is anticipated that demolition and construction work under Alternative 2 would have less than significant effects on biological resources with implementation of BMPs.

Effects from Alternative 3

The effects to biological resources under Alternative 3 would be similar to those described for Alternative 1; however, because the pier deck would be widened by an additional 20 feet under Alternative 3, the disturbance to the aquatic substrate and terrestrial vegetation during construction would be more as compared to Alternative 1. Periodic maintenance dredging would occur under Alternative 3 to remove accumulated sediment within the vessel berth area; therefore, during operations Alternative 3 would have long term, less-than-significant adverse effects to biological resources.

Effects from the No Action Alternative

Under the No Action Alternative, there would not be any new short-term or long-term adverse effects on federally listed species, aquatic wildlife and habitat, migratory birds, vegetation, or noxious weeds or aquatic nuisance species. Debris would continue to accumulate at the existing USCG SSD Owensboro homeport, requiring manual removal on a regular basis. Under the No Action Alternative, maintenance dredging of the vessel berth area would continue having a long-term, less-than-significant adverse effect on aquatic species habitat.

3.7 Hazardous Materials, Human Health and Safety

A hazardous material is a substance that the Secretary of the Department of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of *Federal Hazardous Materials Transportation* law (Federal Hazmat law, 49 U.S.C. 5103). The USCG's Hazardous Materials Division objectives include developing regulations, standards, and industry guidance and providing expertise and technical support to the USCG and other parties. The USCG continuously monitors its operations to find ways to minimize the use of hazardous materials and to reduce the generation of hazardous wastes.

3.7.1 Affected Environment

Environmental Data Resources, Inc. (EDR) was contacted on October 9, 2024, to request available environmental records to determine whether hazardous waste, contaminated sites, leaking or registered underground storage tanks, brownfield or superfund sites, or emergency release reports are known to occur or pertain to the Project Area. According to the *EDR Radius Map ™ Report* with *GeoCheck ®* the Project Area was not listed in any of the databases searched by EDR nor were mapped sites found in EDR's search of available government records. The nearest relevant incident involved the release of oil or a hazardous substance that occurred within the Ohio River, approximately 0.02 miles from the Project Area in August of 2023 at an equal or higher elevation. The report was for "an unknown sheen from an unknown source" (EDR 2024).

A site investigation was conducted by The Johnson McAdams Firm, P.A. on October 16, 2024. No signs of contamination or toxic materials were observed at or adjacent to the Project Area. There is no fuel storage on or adjacent to the Project Area (JMF 2024).

3.7.2 Environmental Consequences

The Proposed Action and alternatives would result in significant adverse effects to the environment if:

- Proposed activities would result in a long-term (i.e., period of 5 years or more beyond completion of the project implementation) increase in the amount of hazardous materials or wastes to be handled, stored, used or disposed.
- Proposed activities would result in non-compliance with applicable federal and state regulations.
- Proposed activities would result in increased site contamination that could preclude future use of the proposed Project Area.

Effects from Alternative 1

Hazardous Materials

Demolition and construction activities under Alternative 1 could potentially increase the risk of hazardous material release to the environment due to increased equipment and vessel traffic associated with proposed project activities. However, the USCG complies within Occupational Safety and Health Administration's (OSHAs) *Hazardous Waste Operation and Emergency Response Standard,* which requires booms to be placed around vessels to help contain any potential spills. Relative to daily operations at the Site, effects from hazardous waste would be negligible, short-term, and localized.

The operational mission at SSD Owensboro would not change under Alternative 1, and no change in the use, generation, or disposal of hazardous materials and/or waste is anticipated. Mitigation and BMPs (see **Section 4.0**) would be implemented if hazardous building materials or contaminated environmental media were discovered during demolition or construction. To minimize potential for accidental releases and contamination from releases, established BMPs (including those for in-water work proposed for Alternative 1) would be followed including the *Spill Prevention Control and Countermeasure Plan*, and the USCG *Marine Environmental Response and Preparedness Manual* (COMDTINST M16000.14A).

Based on the use of BMPs (**Section 4.0**) and compliance with applicable laws, regulations and procedures, short-term effects during construction are anticipated to be negligible. No long-term effects from hazardous materials and/or wastes are anticipated.

Human Health and Safety

Alternative 1 could potentially have minor adverse effects on worker health and safety, due to increases in workload, vessel traffic, equipment, and personnel required during construction and periodic dredging. However, relative to existing conditions and operations, effects would be negligible, temporary, and localized. Implementation of Alternative 1 would have long-term beneficial effects on human health and safety during operations because of improvements made to the infrastructure and shoreline.

Workers could be exposed to risk of injury or death from on-the-job risks, including falling, slipping, tripping, drowning, falling objects, incidents with moving equipment and machinery with moving parts, exposure to excess noise or potential hazardous substances. Contractors would be required to comply with OSHA regulations regarding safety measures and precautions on site, reducing the potential impact from construction-related accidents. Workers would be required to wear the appropriate personal protective equipment (PPE), such as hard hats, as appropriate for the assigned task.

The general public outside of the Project Area would experience no adverse health impact due to the implementation of Alternative 1. Land access to the Project Area is not public and is regulated by the USCG, ensuring that the area is inaccessible. Pursuant to EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), the Proposed Action will not result in disproportionate environmental health or safety risks to children. The Proposed Action would not adversely impact the health of low-income and/or minority communities.

Effects from Alternative 2

Related to potential risk of hazardous material release, demolition and construction activities under Alternative 2 would affect a larger footprint, including in-water work, as compared to Alternative 1 due to the 25-foot extension of the pier deck and the replacement of the heavy-duty debris barrier every 15 years. Under Alternative 2, the pier would be constructed with precast concrete beams in lieu of weathering steel, decreasing routine maintenance requirements relative to Alternative 1. No periodic dredging under this alternative is anticipated, reducing long-term effects from hazardous materials and on human health and safety.

The use of hazardous materials, generation of hazardous waste, and the BMPs implemented to manage construction activities would be similar to those discussed under Alternative 1. Hazardous materials/waste would be handled according to applicable USCG instructions, practices, and procedures for the storage, handling, and transport of hazardous materials and waste, and applicable local, state, and federal laws and regulations. No long-term effects from hazardous materials and/or waste are anticipated due to implementation of Alternative 2.

The overall effects to human health and safety under Alternative 2 would be similar to those described for Alternative 1.

Effects from Alternative 3

The effects related to hazardous materials and human health and safety under Alternative 3 would be similar to those described for Alternatives 1 and 2. Alternative 3 would have a wider pier deck than Alternatives 1 and 2, a heavy-duty debris barrier having to be replaced every 15 years consistent with Alternative 2, and would require dredging every 5 years consistent with Alternative 1. These activities are associated with potential increased effects related to hazardous materials and human health and safety. On the other hand, the dedicated 20-foot fire lane would improve firetruck access when the pier deck is occupied with other equipment. No long-term effects from hazardous materials and/or waste are anticipated due to the implementation of Alternative 3.

Effects from the No Action Alternative

Under the No Action Alternative, debris would continue to accumulate in the Project Area, impeding safe and efficient operation and navigation of the USCG. Without the shore-side and infrastructure improvements associated with the Proposed Action, physical removal of debris, periodic maintenance dredging, and routine maintenance of existing structures would continue potentially having minor adverse effects on human health and safety.

3.8 Noise

This section addresses the ambient noise conditions and potential project effects of in-air noise on human receptors. In-air and in-water noise effects on fish and wildlife are addressed in **Section 3.6**, Biological Resources.

3.8.1 Affected Environment

Sound becomes noise when it interferes with normal activities such as sleep or conversation. Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Measurement and human perception of sound involve three basic physical characteristics: intensity, frequency, and duration. Intensity is a measure of the acoustic energy of sound vibrations and is expressed in terms of sound pressure. Frequency is the number of times per second the air vibrates or oscillates. Duration is the length of time during which the sound can be detected. Existing noise at SSD Owensboro is described below.

Natural sounds associated with SSD Owensboro include wind, bird calls, insect sounds, lapping water, and natural stillness/quiet. SSD Owensboro is located between State Highway 144 to the south and the Ohio River, which are major thoroughfares for vehicle and container ship traffic, respectively. As such, the sounds of ship horns and other shipping-related maritime equipment are present at SSD Owensboro. Noise associated with SSD Owensboro includes vehicle, loader, crane, and maritime noise and is consistent with industrial areas on the Ohio River.

Some individuals or land uses are more sensitive to noise than others. Such sensitive noise receptors include hospitals, schools, churches, daycare facilities, and nursing facilities as well as residential areas. Sensitive receptors located within 1 mile of the Project Area include a single-family home located 0.08 miles southwest, two churches located 0.25 miles south, and a residential neighborhood located 0.23 miles northeast. Owensboro Health Regional Hospital is located 0.75 miles south of the Project Area.

In accordance with the Noise Control Act of 1972 (42 U.S.C. §4901 et seq.), federal agencies must comply with federal, state, and local requirements with respect to control and abatement of environmental noise.

3.8.2 Environmental Consequences

The alternatives would be considered to result in a significant adverse effect to noise if:

- It would raise the ambient noise level to such a state that it would be seriously incompatible with adjacent noise receptors including natural soundscapes.
- It would be incompatible with local ordinances regarding noise, such as regulations for allowable work hours.
- It would substantially increase the number of people disturbed by the heightened noise levels on SSD Owensboro.

Potential effects to biological receptors are discussed in **Section 3.6**, Biological Resources.

Effects from Alternative 1

Under Alternative 1, construction and demolition activities, including heavy equipment operation, would introduce temporary and intermittent construction noise at the Project Area during daylight hours. **Table 3-5** lists noise levels associated with construction equipment that could be used during demolition of the existing concrete pier deck, construction of the new pier deck, construction of cofferdams and debris barrier, and new piles.

Table 3-5. Construction Equipment Noise Levels from Equipment Potentially Utilized during Demolition and Construction

Equipment	Noise Level (dBA) 50 feet from Source
Vibratory pile driver	101
Concrete saw	90
Pneumatic tools	85
Saw	84
Crane barge	76
Work boat	72

Notes: dBA = a-weighted decibel
Sources:
Federal Highway Administration, 2006, Construction Noise Handbook. Available: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/
Epsilon Associates, Inc., 2006, Phase 1 Final Design Report: Attachment J – Noise Impact Assessment Available: https://www3.epa.gov/hudson/pdf/2006_03_21%20Phase%20I%20FDR%20ATTACHMENT%20J.pdf

Maintenance dredging activities during operations would generate noise from operation of equipment and barges. Increased noise levels would directly affect the immediate area surrounding the dredge site. The resulting noise, however, would not be significant compared to existing noise conditions in and around the Project Area that are typical of an industrial waterfront environment. Increased noise levels from dredging would be intermittent and short-term. Equipment and machinery used at the dredge site are not anticipated to exceed 80 dB at the surface, and would meet all applicable local, state, and federal noise regulations.

Dredging activity underwater may generate noise between 100 and 110 dB. Generated underwater noise may temporarily alter fish behavior, but species in the area would be able to avoid the dredge site and occupy other areas within the Ohio River. Additionally, proposed dredge activities are not expected to exceed the limits set by NOAA for harassment of or injury to fish (120 dB for continuous noise) and would diminish away from the impacted dredge site. Once the maintenance dredging activities are completed, noise conditions at the SSD Owensboro and surrounding vicinity would return to baseline conditions.

As outlined in **Section 4.0,** the USCG would implement BMPs as appropriate to limit noise effects during project activities, including complying with local noise ordinances (i.e., Daviess County). If noise levels exceed local ordinances, noise reduction measures, such as installing mufflers on motorized equipment and reducing hours of operations, would be implemented. All equipment would be operated according to the manufacturer's recommendations and would be shut down when not in use.

Long-term noise generation would be localized to the homeport area and would not be expected to affect existing sensitive noise receptors around SSD Owensboro any more than current operations. Implementation of Alternative 1 would not raise ambient noise levels such that they would be incompatible with adjacent noise receptors (residences, two churches, and a hospital), nor would it substantially increase the number of people disturbed by heightened noise levels.

Noise-related effects are anticipated to be short-term and minimally adverse but less than significant.

Effects from Alternative 2

Demolition and construction activities under Alternative 2 would affect a larger footprint, including in-water work due to the 25-foot extension of the pier deck. Construction activities may also extend over a relatively longer timeframe to account for the additional pier deck work. There would be less operational noise under Alternative 2 as periodic maintenance dredging during operations would not be required as is the case with Alternatives 1 and 3. The types of construction equipment and noise generated during the construction phase and replacement of the heavy-duty debris barrier every 15 years, as well as available BMPs applied to mitigate noise propagation during operations, would be similar to those anticipated under Alternative 1. Accordingly, noise-related effects are anticipated to be short-term and minimally adverse but less than significant under Alternative 2.

Effects from Alternative 3

Noise-related effects under Alternative 3 would be similar to those described for Alternative 2 during the construction phase and the times when the heavy-duty debris barrier would be replaced (every 15 years). Noise disturbance from periodic maintenance dredging during operations would be similar to Alternative 1. Noise-related effects are anticipated to be short-term and minimally adverse but less than significant.

Effects from the No Action Alternative

Under the No Action Alternative, demolition and construction activities would not occur. There would be no change to ambient noise conditions in the Project Area.

3.9 Transportation

3.9.1 Affected Environment

The Site (and Project Area) is accessed from State Highway 144 (**Figure 1-2**). The annual average daily traffic (AADT) along the segment of the four-lane highway that provides access to the Site was estimated to be approximately 15,153 vehicles per day in 2023 (KYTC 2023). Kentucky Highway 144 is a state-maintained road managed by District 2 of the Kentucky Transportation Cabinet.

The Project Area and associated pier are over the Ohio River where there is existing vessel traffic. The Ohio River is a waterway that is important for interstate commerce and has navigational aids that help guide vessels along the river.

3.9.2 Environmental Consequences

During proposed project demolition and construction activities, some onshore transportation facilities would be utilized; however, it is anticipated that most work would be conducted from a barge and work boats. The following criteria were used to assess effects on vessel traffic and navigation:

- The alternative would have an adverse effect if it would interfere with current vessel transit on the Ohio River and impede navigation of other vessels. Effects would be significant if they would result in permanent changes to vessel navigation. The effects would be less-than-significant if they would result in temporary changes.
- The alternative would have beneficial effects if it would improve vessel transit and navigation, such as by increasing the amount of available space for navigation.

Effects from Alternative 1

Construction associated with Alternative 1 could have minor and long-term adverse effects by introducing cofferdams and a debris barrier, which could pose a safety hazard to vessels by blocking part of the channel. To reduce potential hazards, USCG would use appropriate buoys and lighting to mark cofferdams and alert potentially impeding vessel traffic of their location. Alternative 1 would result in beneficial effects to vessel transit by deflecting the large floating woody debris that presents navigation hazards. During operations, the proposed facilities would also improve the vessel berth and navigational area, which in turn could have a long-term beneficial effect on vessel transit and navigation.

Effects from Alternative 2

Demolition and construction activities proposed under Alternative 2 would affect a larger in-water footprint due to the 25-foot extension of the pier deck. As with Alternative 1, the cofferdams and debris barrier could pose a safety hazard to vessels by blocking part of the channel, though USCG would take appropriate measures (hazard lighting and buoys) to alert vessel traffic. The use of construction equipment and BMPs associated with transportation and vessel traffic and navigation would be similar to those anticipated under Alternative 1. Under Alternative 2, beneficial effects to vessel traffic and navigation are anticipated due to the pier extension providing greater depth beneath the moorings.

Effects from Alternative 3

The effects to vessel traffic and navigation under Alternative 3 would be similar to those described for Alternative 1. USCG would use buoys and appropriate hazard lighting to mark the cofferdams and debris barrier and alert potentially impeding vessel traffic of their location. During operations, the proposed facilities would also improve the vessel berth and navigational area, which in turn could have a long-term beneficial effect on vessel transit and navigation.

Effects from the No Action Alternative

Under the No Action Alternative, no construction would occur. The existing facilities would remain and continue to pose navigational hazards in their current locations. The deteriorated debris deflector would continue to allow large woody debris to accumulate at the floating dock presenting navigation and collision hazards. The No Action Alternative would continue to have a minor, long-term adverse effect on vessel transit and navigation.

3.10 Infrastructure, Utilities and Services

3.10.1 Affected Environment

Waterfront Infrastructure

Existing waterfront infrastructure in the Project Area includes the pier, gangway, and floating dock with associated pilings (**Figure 1-2**). The concrete pier is made up of pre-stressed and pre-cast concrete beam sections. The pier is 140 feet long and varies in width from 16 to 20 feet, with support guardrails along the sides and the end of the pier. On the shoreline, the pier is secured by three pile bents and a landside abutment. The load limit of the existing pier deck is 150 psf.

A floating dock, approximately 75 feet long and 18 feet wide, is located on the downstream side of the pier and is accessed by an aluminum ramp (or gangway). The floating dock is held in place by six 12-inch diameter steel piles. Mooring for the Obion is provided by four 48-inch piles, two at the bow end of the barge and two along the inboard side.

Utilities

Water, sewage, and electrical utilities are all located on the pier. Water is supplied by a 2-inch line from the City of Owensboro. Sewage (black water) is initially stored on the Obion and then pumped from the Obion through a 3-inch force main to a submersible pump station near the west end of the pier. From there, black water is pumped to the Regional Water Resource Agency (RWHA). Grey water from the cutter is discharged overboard. Electricity is supplied by Owensboro Municipal Utilities with 200-amp electrical service available on the pier.

Emergency Services

The Owensboro Health Regional Hospital is located 0.75 miles south of the USCG SSD Owensboro. The Owensboro Fire Department, Fire Station #2, and the Daviess County Fire Department are all located within 5 miles of the Project Area. Emergency services are provided by 911 telephone service and paid Emergency Medical Service.

3.10.2 Environmental Consequences

Effects on infrastructure, utilities or emergency services would be considered significant if the Proposed Action would create a demand that exceeds the capacity of the service provider.

Effects from Alternative 1

Under Alternative 1, waterfront infrastructure (pier deck, floating dock, debris deflector) and utilities would all be upgraded to meet the needs of the proposed new incoming cutter. Electrical load for the proposed cutter would be met by installing a new transformer, metering installation, and main distribution panel on the shore along 400- and 100-amp Power Mound receptacles located on the pier. Shore tie power conductors would be provided for ship to shore power connections. Water (including a 6-inch fire line) and sewer lines would be extended to accommodate the new cutter. The upgraded infrastructure and utilities would provide long-term benefits by more effectively meeting the operational needs and missions of USCG SSD Owensboro. Implementation of Alternative 1 would have no effect on water availability or supply to existing users and would not overdraft groundwater aquifers or exceed safe annual yield of water or energy supply sources. Implementation of Alternative 1 would not adversely affect the current demand for emergency services in the area but could have long-term beneficial effects by upgrading infrastructure and utilities and eliminating hazards that could have required emergency services.

Effects from Alternative 2

Alternative 2 would involve extending the pier an additional 25 feet requiring the existing water line, sewage line and electrical service to be extended. These extensions are not anticipated to have adverse effects on safe annual yield of water or energy supply sources. The effects to infrastructure, utilities, and service under Alternative 2 would be similar to those described for Alternative 1.

Effects from Alternative 3

Effects to infrastructure, utilities, and emergency services under Alternative 3 would be similar to those described for Alternative 1. In addition, the wider pier deck could result in long-term beneficial effects by facilitating fire and emergency vehicle access.

Effects from the No Action Alternative

Under the No Action Alternative, no infrastructure or electrical service upgrades would occur. The No Action Alternative would require USCG SSD Owensboro personnel to operate in the current facility that do not meet their current or future operational needs.

3.11 Visual Resources

3.11.1 Affected Environment

The Ohio River at the USCG SSD Owensboro is characterized as highly developed, mixed industrial- residential on the left (south) bank and as rural, agricultural fields, and deciduous forests and islands on the right (north) bank. Numerous piers, vessels, and structures line the left bank, including facilities in the Project Area, in support of local industrial activities.

The region of influence for visual resources is the Ohio River waterfront and viewpoints from the highway or adjacent properties from which the Project Area is visible. Given access to the Site to limited to personnel and approved visitors, the primary public view of the Project Area is from the river. The Project Area is approximately 0.15 miles from a four-lane highway (KY Highway 144); however, a forested border of tall, deciduous trees impedes the view of the Project Area.

3.11.2 Environmental Consequences

Effects on visual resources would be considered significant if project-related actions substantially alter the scale or the character of the existing area or substantially degrade the views from recognized sensitive viewpoints or receptors in the area.

Effects from Alternative 1

Implementation of Alternative 1 would have minor and temporary adverse effects on existing visual resources in the Project Area during demolition and construction activities. However, large vessels and barge-mounted equipment are regularly present in the Project Area in support of USCG activities or passing by as related to routine transportation on the Ohio River. The presence of project-related barges or equipment during construction would not be a new visual intrusion in this industrial setting. Equipment, debris, and any potential waste generated during construction would be removed from the area following completion of all demolition and construction activities.

Updated facilities associated with Alternative 1 would not appreciably change the existing visual setting of the Project Area or have long-term adverse effects on visual resources.

Effects from Alternative 2

Demolition and construction under Alternative 2 would affect a larger footprint as compared to Alternative 1 due to the 25-foot extension of the pier deck. However, consistent with Alternative 1, given the existing visual setting of the Project Area and general vicinity, proposed activities under Alternative 2 would not be expected to have long-term adverse effects on visual resources.

Effects from Alternative 3

The effects to visual resources under Alternative 3 would affect a larger footprint as compared to Alternative 1 due to the widening of the pier deck by 20 feet. Consistent with Alternative 1, given the existing visual setting of the Project Area and general vicinity, proposed activities under Alternative 2 would not be expected to have long-term adverse effects on visual resources.

Effects from the No Action Alternative

Under the No Action Alternative, existing structures would remain. Debris accumulation within the Project Area would continue given a new debris deflector would not be constructed. Given the lack of nearby sensitive viewpoints and the existing industrial character of this segment of the Ohio River, including of the Project Area, no effects to visual resources are anticipated.

3.12 Cultural and Historic Resources

Cultural resources are districts, sites, buildings, structures, areas of traditional use, or objects with historical, archaeological, architectural, cultural, or scientific importance. They include archaeological resources (historic and prehistoric), historic architectural resources, and traditional cultural resources (those important to living Native Americans for religious, spiritual, ancestral, or traditional reasons).

The National Historic Preservation Act of 1966 (NHPA; 36 CFR §800) establishes national policy for protecting significant cultural resources that are defined as “historic properties” under 36 CFR 60.4. NHPA Section 106 (36 CFR §800) requires that federal agencies consider and evaluate the effect that federal projects may have on historic properties under their jurisdiction. Only significant cultural resources are considered for potential adverse effects from a federal action.

Although NEPA does not explicitly define cultural resources, the Act requires agencies to consider the effects of their actions on all aspects of the human environment, including the significance of impacts on an area's unique characteristics, such as "historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, and ecologically critical areas" (40 CFR 1508.27(b)(3)). Evaluating the significance of impacts weighs in part the degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the *National Register of Historic Places* (NRHP) or actions that may cause loss or destruction of significant scientific, cultural, or historical resources (40 CFR 1508.27).

NEPA therefore introduces two conditions to accounting for cultural resources: one a specific category of historic resources (sites, buildings, structures, objects, and districts) eligible for the NRHP as defined by the NHPA; the other a more general understanding of cultural or historic resources that may more broadly include local historic registers, places of significant community interest, Native American sacred sites or other resources of Tribal concern.

3.12.1 Affected Environment

Indigenous peoples have lived on the land now called Kentucky for at least 12,000 years. The lands belong to the Shawnee, Cherokee, Chickasaw, and Osage peoples (KFTC 2024). Much of Kentucky’s American Indian history is written within the Commonwealth’s rich archaeological record: thousands of camps, villages, and town sites; caves and rock shelters; and earthen and stone mounds and geometric earthworks (Henderson & Pollack 2012). Kentucky-affiliated native American Tribes include the Shawnee, Cherokee, Chickasaw, and Osage.

A preliminary records review was requested from the University of Kentucky Department of Anthropology Office of State Archeology (OSA) on November 7, 2024. The results of the preliminary records review show that there is a known archaeological site within a 30 m (approximately 98 feet) buffer of the proposed Project Area boundary. The type of site is considered “an open habitation without mounds”. These sites range from farmsteads to large villages and comprise almost 70 percent of all recorded sites from the Mississippian period (A.D. 1000-1700) in Kentucky (Pollack et al. 2008). The known National Register status of the site has not been assessed. Results of the preliminary records review indicate that a Phase II

Archaeological investigation was conducted within the Site (not focused specifically on the Project Area) in 2002. Results of the archaeological survey were not included with the preliminary records review.

The U.S. EPA *NEPAssist* tool was used to determine whether places listed in the *National Register of Historic Places*, as authorized by the NHPA, are within the proposed Project Area and potentially affected by the Proposed Action. There are no places listed in the National Register of Historic Places within 0.24-mile of the Project boundary (EPA 2024c).

In compliance with Section 106 of the NHPA federal agencies are required to consider and evaluate the effect that federal projects may have on historic properties under their jurisdiction. Only significant cultural resources are considered for potential adverse impacts from a federal action. A letter to the KHC SHPO requesting a Section 106 review of the Area of Potential Effects (APE) was sent on January 8, 2025. On January 29, 2025, KHC SHPO concurred, pursuant to Section 106 of the NHPA, that the Proposed Action would have No Adverse Effect to Historic Properties.

3.12.2 Environmental Consequences

The following criteria were used to assess effects on cultural and historic resources:

- The alternative would have an adverse effect if it had an adverse effect as defined under Section 106 of the NHPA. The adverse effect would be less-than-significant if it could be adequately avoided, minimized, or mitigated in consultation with the SHPO and other consulting parties in accordance with 36 CFR 800.6. The effect would be significant if the adverse effect was not or could not be resolved.
- The alternative would have a beneficial effect if it enhances the historic integrity of a cultural resource, for instance by permanently removing a feature or condition that currently detracts from it.

Effects from Alternative 1

Implementation of Alternative 1 has a low potential to discover previously undiscovered submerged cultural and historic resources. The water surrounding the Project Area has a regular history of dredging to maintain a navigable channel and support operations of the USCG. In the event that an archaeological artifact is inadvertently discovered in sediment during in-channel activities, the USCG would cease work immediately and notify the KHC SHPO (See **Section 4.0**). Implementation of Alternative 1 would not be anticipated to have adverse effects on cultural and historic resources.

Effects from Alternative 2

Demolition and construction activities under Alternative 2 would affect a larger footprint as compared to Alternative 1 due to the 25-foot extension of the pier deck. However, consistent with Alternative 1, proposed activities under Alternative 2 are not anticipated to adversely affect cultural and historic resources.

Effects from Alternative 3

The effects to cultural and historic resources under Alternative 3 would be similar to those described for Alternative 1; however, it would affect a larger footprint due to the 20-foot widening of the pier deck. Consistent with Alternative 1, proposed activities under Alternative 3 are not anticipated to adversely affect cultural and historic resources.

Effects from the No Action Alternative

Under the No Action Alternative, USCG would not proceed with any new construction activities. No adverse effect to cultural or historic resources would occur.

4.0 BEST MANAGEMENT PRACTICES

In accordance with established protocols, procedures, and requirements, the USCG would implement BMPs and adhere to all regulatory requirements in association with the Proposed Action. BMPs are included as components of the Proposed Action, including all action alternatives, and described below. BMPs are regulatory compliance measures that the USCG regularly implements as part of their activities, as appropriate. These differ from "mitigation measures", which are defined as project-specific requirements, not routinely implemented by the USCG, necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels. As no adverse environmental impacts have been determined to be potentially significant, no mitigation measures would be required for the Proposed Action.

The Proposed Action takes place primarily in the aquatic environment, which contains sensitive habitats and species that require special consideration to protect them from incidental harm during construction activities. The Proposed Action includes a number of conservation measures that were developed with technical assistance from the USFWS during preparation of this EA or through review of historic agency authorizations (e.g., USACE). In addition, the USFWS *Recommended Standard Best Management Practices* (2022b) and *Nationwide Avoidance & Minimization Measures for Birds* (2024g) were included, if applicable. Any other measures that are required during project-specific reviews by relevant agencies will also be incorporated. The USCG would initiate pre-application coordination with USACE to determine the type of permit required. Possible permit conditions will be determined after the required permit documentation is filed.

Main BMPs to avoid or minimize effects to the environment are listed below; however, these BMPs may change based on coordination with regulating agencies including USACE.

Air Quality and Climate. The USCG would ensure that project activities are performed in accordance with applicable state and federal regulations, to ensure that no exceedance of thresholds occurs. Reasonable precautions would be taken to prevent particulate matter, such as fugitive dust, from becoming airborne. Available methods to reduce the potential impact of particulate matter or release of other emissions may include:

- Cover stockpiled dredged soil when being transported via barge, truck, or while dewatering is occurring.
- Require and enforce low transit speeds for equipment on unpaved surfaces.
- Use fossil fuel-efficient equipment with emission controls.
- Clean all equipment and vehicles to prevent off-site transport.
- Minimize dust generation by implementing dust control measures, such as periodic watering of exposed soil, wet-cutting concrete, and cleaning surfaces by wet mopping.
- Ensure the use of paints, solvents, adhesives, and cleaners comply with local VOC laws and regulations.

Geology and Soils.

- Turbidity and siltation from project-related work should be minimized and contained within the Project Area by using bioengineering controls, silt containment devices and curtailing work during flooding or adverse weather conditions. BMPs should be maintained for the life of the Project until turbidity and siltation within the Project Area are stabilized.
- All deliberately exposed soil or underlayer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.
- Avoid soil contamination by using drip pans underneath equipment and containment zones at construction sites when refueling vehicles or equipment.
- Dredged sediment would be dewatered, tested for potential contaminants, and then transported by barge to an approved disposal site to be offloaded and either disposed of at an approved site or beneficially reused.

Water Resources and Waters of the United States.

- All construction-related materials and equipment (e.g., dredges, vessels, silt curtains, backhoes, etc.) to be placed in an aquatic environment should be inspected for pollutants (e.g., oil) or undesirable aquatic species (e.g., zebra mussels) and cleaned to remove prior to use.
- Designate upland areas for storage of materials. Store project construction-related materials (e.g., fill, rock, pipe) away from aquatic habits to protect erosion and prevent release into waters by wind, rain, or high-water levels. Any work surface on a barge or pier shall include a containment basin for pile and any sediment removed during construction, dredging, or piling.
- Fueling of vehicles and equipment should take place away from the aquatic environment, when practical. Develop and implement a spill contingency plan to control petroleum products accidentally spilled during the project.
- Take care to minimize debris, including sawdust and concrete rubble, from entering water during demolition or construction.
- Deploy in-water debris boom and turbidity curtain around all active work areas and equipment to control debris and meet water quality requirements.
- Comply with applicable federal and state laws when applying pesticides or herbicides to vegetation.

Biological Resources. The USCG would implement the BMPs identified under *Water Resources* and *Geology and Soils* to protect aquatic wildlife and habitat and minimize potential effects. In addition, the USCG would implement the following conservation recommendations, as outlined by USFWS and USACE, to minimize adverse effects to biological resources:

- Schedule timing of in-channel disturbance (e.g., pile driving, cofferdam construction) to avoid sensitive aquatic life events (e.g., spawning)
- Modify the Proposed Action to avoid effects to suitable bat roosting and foraging habitat, such as caves, culverts, bridges, large-diameter tree species, etc.

- Retain standing dead trees for roosting habitat for birds and bats. Limit vegetation removal to the amount practicable to minimize effects to riparian areas and avoid habitat loss.
- Conduct pre-clearance surveys to visually inspect bridges and structures for individuals, roosts, or nests no more than three days prior to construction or demolition. Notify the KDFWR and/or USFWS if roosts or nests are encountered and need removed.
    - Establish a buffer zone by constructing a barrier (e.g., plastic fence) around known nests. If not feasible, contact the USFWS for guidance to minimize effects or to obtain a permit.
- Utilize horizontal direction drilling when appropriate to minimize effects to freshwater mussels.
- Clearly delineate and maintain project boundaries to avoid encroaching outside Project Area disturbance footprint.
- Schedule all vegetation removal, trimming, and grading of vegetated areas outside of the peak bird breeding season (generally February 15 through August 31) to the maximum extent practicable.
- Use physical or visual deterrents (e.g., plastic owls) to deter birds from nesting in disturbance areas or on structures where electrocution is a risk.
- Prepare a noxious weed abatement plan that outlines the areas where weed abatement is required and the schedule and method of activities to ensure bird effects are avoided.
- For temporary and permanent habitat restoration, use only native and local seed and plant stock, when possible.
- Create vehicle and equipment wash stations to prevent accidental introduction of non-native plants.
- Limit construction activities to daylight hours to avoid the illumination of adjacent habitat areas. Use down shielding or directional lighting to avoid light trespass into bird habitat. Avoid the use of bright white light, such as metal halide, halogen, fluorescent, mercury vapor and incandescent lamps.
- Prevent increase in lighting of native habitats during the bird breeding season.
- Minimize bird collision risk with project infrastructure (temporary and permanent) by increasing visibility through appropriate marking and design features (e.g., wire marking)
- Reduce and properly manage and store waste (e.g., food) to prevent attracting opportunistic avian predators and scavengers. Provide enclosed solid waste receptacles at Project Area.
- If vibratory extraction is used as a method for pile removal, follow a “ramp-up” procedure to protect aquatic wildlife. Sound should be initiated for 15 seconds at reduced energy followed by a 1-minute waiting period. Repeat this procedure two additional times.
    - Use “wake up” procedures to break the bond with the pile and sediment through vibrations, to avoid pulling out large blocks of soil.
    - Properly train the crane operator to remove piles slowly to minimize turbidity in the water column as well as sediment disturbance.

- Prevent the increase in noise above ambient levels during the nesting bird breeding season.

Health and Safety. All waste generated during the Proposed Action, including dewatered dredge spoils, would be properly disposed of at permitted waste facilities. The USCG would take precautions to minimize the risk of spills and address / report spills that may occur. Fire hazards from vehicles and human activities would be mitigated (e.g., use of spark arrestors on power equipment). The USCG would ensure that all personnel on site comply with OSHA safety and health standards.

Noise. The USCG would implement BMPs as appropriate to limit noise effects during project activities, including complying with noise ordinances. If noise levels exceed local ordinances, noise reduction measures, such as installing mufflers on motorized equipment and reducing hours of operations, would be implemented. All equipment would be operated according to the manufacturer's recommendations and would be shut down when not in use.

Transportation. The USCG would use appropriate buoys and lighting to mark cofferdams, vessels, etc. and alert potentially impeding vessel traffic of their location. Barges and associated equipment would be moored near the Site following daily activities. Terrestrial vehicle traffic would follow posted speed limits and adhere to all traffic regulations upon entering the Site.

Cultural and Historic Resources. In the event that a submerged archaeological site or artifact is inadvertently uncovered during implementation of the Proposed Action, all dredging activities would be immediately halted until a proper archaeological assessment can be made. The USCG would notify the KHC within 24 hours. In the unlikely event that human remains are found during construction of implementation of the Proposed Action, work would cease immediately, and the county coroner and the KHC would be contacted.

5.0 CUMULATIVE EFFECTS

A cumulative effect is defined as “the impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 1508.7).”

Analysis of cumulative effects in this EA has been limited to proposed projects or projects approved within the past 10 years (actions). Since the Proposed Action is limited to in- and over-water work and pier deck demolition and construction on the left descending shore of the Ohio River, other actions considered in this section have been limited to those with an in- or over-water work component and/or near shore construction component on the left descending shore of the Ohio River within a 2-mile radius (collectively upstream/downstream) of the USCG SSD Owensboro. Furthermore, due to the presence of a higher elevation ridge that runs approximately parallel to Highway 144, projects located in upland areas on the south side of the highway are not included. Due to the elevation profile, construction stormwater would flow away from the Ohio River on the south side of Highway 144. **Table 5-1** lists the actions included in the cumulative effects analysis.

Table 5-1. Actions Evaluated for Cumulative Effects

Project	Important Project Dates	Implementation Status	Description
Owensboro Terminal Pile Dolphins	Permit issued in 2016	Past	In 2016, the USACE issued a Letter of Permission for the installation/construction of pile dolphins at the Owensboro Terminal located downriver from the Project Area approximately 1.5 miles
Shoreside Improvements for River Terminal	Permit issued in 2016	Past	In 2016, the USACE Louisville District issued a Letter of Permission to Dennis Payne-Yager Materials LLC for shoreside improvements at a sand and gravel operation at S&Y Terminal located upriver from the Project Area approximately 1.65 miles.
Dredging Intake Maintenance for Municipal Utilities	Permit issued in 2017	Past	In 2017, the USACE Louisville District issued a Letter of Permission to the Owensboro Municipal Utilities for intake maintenance dredging at a site located upriver from the Project Area approximately0.75 miles.
Expansion of Sand and Gravel Operation	Approved Jurisdictional Determination (AJD) issued in 2021	Past	In 2021, the USACE Louisville District issued an AJD for the expansion of Yager Yard 3 at a sand and gravel operation at S&Y Terminal located upriver from the Project Area approximately 1.65 miles.
Barge Loading/Unloading Operations	Permit issued in 2024	Past	In 2024, the USACE issued a Letter of Permission for Holcim Barge Loading/Unloading operations located downriver from the Project Area approximately 1.55 miles.
Grain Loading Facility	Permit issued in 2025	Reasonably Foreseeable Future	In 2025, the USACE issued a Letter of Permission for the Owensboro Grain Loading Facility located downriver from the Project Area approximately 1.70 miles.

Project	Important Project Dates	Implementation Status	Description
Dry Dock Construction	Public Notice issued in January 2025	Reasonably Foreseeable Future	On Jan. 23, 2025, the USACE Louisville District issued a Public Notice for an application submitted to obtain a Permit for proposed construction of a new dry dock, work barge mooring, and to perform annual maintenance dredging at an existing facility at a River Terminal located upriver from the Project Area approximately 1.5 miles.
Wastewater Treatment Plant Improvements	Future	Reasonably Foreseeable Future	In 2020, the Regional Water Resource Agency finalized a 20-year Master Plan that includes plans for future improvements to the existing David Hawes Wastewater Treatment Plant. Anticipated to be completed by 2040 located upriver from the Project Area approximately 1.2 miles.

Air Quality and Global Climate Change. The Proposed Action would have minor and temporary adverse effects on localized air quality during demolition and construction activities, but there would be no long-term changes to local air quality during operations. This combined with the other cumulative actions would not be anticipated to result in any violations of national ambient air quality standards or result in any long-term negative effects to current air quality and around the Project Area.

Geology and Soils. Ground disturbances during pile removals and installation, cofferdam construction, and potential periodic maintenance dredging associated with the Proposed Action (depending on the Alternative) in combination with dredging activities associated with the other cumulative actions could have short-term adverse effects on substrate conditions, the extent of which would be minimized through use of standard BMPs. The Proposed Action in combination with other cumulative actions are not anticipated to have any long-term adverse effect on geology or soils.

Water Resources and Water Quality. The Proposed Action would have minor adverse effects on water quality due to increased turbidity and contamination risk during demolition and construction activities as well as minor adverse effects during periodic maintenance dredging (depending on the Alternative). It is anticipated that activities associated with the Proposed Action would primarily be conducted from the water via barges/vessels; however, some equipment may access the pier during demolition and construction from the upland side of the Site. Effects of the Proposed Action in combination with maintenance dredging activities associated with the other cumulative actions would be minimized through use of standard BMPs and would be conducted in compliance with federal and state approvals and regulations, particularly compliance with the federal ESA, CWA, and State-approved Environmental Management Plans. In the long term, the Proposed Action may have beneficial effects on water quality through reduced need for maintenance dredging as compared to the No Action Alternative. The long-term operations at the USCG SSD Owensboro are expected to maintain water quality consistent with state and federal standards. The Proposed Action in combination with other cumulative actions are not anticipated to have any long-term adverse effect on water resources or water quality.

Biological Resources. The Proposed Action would not be expected to have incremental adverse effects on biological resources with implementation of standard BMPs. All activities that have the

potential to affect federally listed species are subject to consultation with USFWS, including complying with any required or recommended conservation measures. The Proposed Action would not be expected to adversely affect bats or migratory bird species. The Proposed Action and cumulative actions would adhere to BMPs to avoid and minimize the spread of aquatic nuisance species. The Proposed Action in combination with other cumulative actions are not anticipated to have any long-term adverse effect on biological resources.

Hazardous Materials, Human Health and Safety. The Proposed Action would have incremental long-term beneficial effects by improving safety (improved vessel berth area, increased pier deck load capacity, decreased large woody floating debris) at the Project Area. Both the Proposed Action and cumulative actions have the potential to disturb potentially contaminated sediments during maintenance dredging. Use of BMPs, such as turbidity curtains, will help minimize transport of those sediments to other areas while the material resettles on the bottom. The Proposed Action in combination with other cumulative actions are not anticipated to have any long-term adverse effect on human health or safety.

Noise. Given the nature of the Proposed Action and existing land uses along the left descending shore of the Ohio River, including the cumulative actions, no incremental adverse noise effects resulting from the use of mechanized equipment are anticipated. There are relatively few potential sensitive noise receptors within 1 mile of the projects, and the nature of standard USCG operations at the SSD Owensboro and waterfront facilities already introduces intermittent loud noises into the baseline environment. The Proposed Action in combination with other cumulative actions are not anticipated to have any long-term adverse effect on ambient noise conditions of the area.

Transportation. The Proposed Action would have minor beneficial effects by deflecting large floating woody debris that presents navigation hazards. Activities associated with the Proposed Action could have minor and long-term adverse effects by introducing cofferdams near shore with construction of the debris deflector; however, the USCG would use appropriate buoys and lighting to mark cofferdams and alert potentially impeding vessel traffic of their location. The Proposed Action in combination with other cumulative actions are not anticipated to have any long-term adverse effect to transportation.

Infrastructure, Utilities and Services. The Proposed Action would upgrade infrastructure and utilities and eliminate hazards that could have required emergency services. The other cumulative actions would maintain the safety of the City of Owensboro's municipal water source and increase safety at multiple terminal sites resulting in minor long-term beneficial effects in the area.

Visual Resources. The Proposed Action would have minor and temporary adverse effects on visual resources during demolition and construction activities and as part of maintenance dredging (depending on the Alternative). However, large vessels and barge-mounted equipment are regularly present at the Site in support of USCG activities or passing by related to routine transportation on the Ohio River. The presence of Project-related barges or equipment during construction or during maintenance dredging in combination with any equipment used to support cumulative actions would not be a new visual intrusion in this setting. No long-term adverse effects to visual resources are expected.

Cultural and Historic Resources. The Proposed Action is not anticipated to result in the loss of any cultural or historic resources. The water surrounding the Project Area has a regular history of dredging to maintain a navigable channel and support operations of the USCG. In the event that an archaeological artifact is inadvertently discovered in sediment during in-channel activities, the USCG would cease work immediately and notify the KHC SHPO. Disturbance associated with cumulative actions are not anticipated to affect any cultural and historic resource sites.

6.0 COMPARISON OF ALTERNATIVES AND CONCLUSIONS

6.1 Comparison of the Environmental Consequences of the Alternatives

This EA has evaluated the potential physical, natural, cultural, and cumulative effects of the USCG's proposed waterfront improvements at the USCG SSD Owensboro to accept a planned WCC variant and address the operational dredging and drift accumulation issues associated with the current Site/facilities, as detailed in **Section 2.2**. Three alternatives were evaluated in addition to the No Action Alternative. A general comparison of the environmental consequences of these alternatives is provided in **Table 6-1**.

As outlined throughout **Section 3.0**, environmental effects associated with Alternatives 1, 2 and 3 are similar in nature, with some minor differences noted due to minor variations in total construction disturbance/footprint and associated duration of construction activities (use of existing pier length versus construction of 25-foot extension of the pier versus 20-foot widening of the pier), type of facility (e.g., structural steel debris barrier versus heavy-duty floating debris boom/barrier) and variations in long-term maintenance requirements (varying need for periodic maintenance dredging, etc.). For example, extending the pier (Alternative 2) may incrementally increase short-term effects associated with additional construction disturbance (e.g., sedimentation, etc.), but would eliminate maintenance dredging resulting in fewer long-term effects to similar resources. Regardless of the Alternative selected, all long-term effects would be reduced below the level of significance with the implementation of BMPs and minimization measures outlined in **Section 4.0**.

6.2 Conclusion

This EA concludes that there would be no significant adverse impacts to the local physical and natural environment as a result of implementing the Proposed Action, with the adherence to federal, state and local laws and regulations, as well as avoidance and minimization measures and BMPs specified in this EA. Therefore, an EIS is unnecessary for implementing the Proposed Action, and a FONSI is appropriate.

Alternative 2 was determined by the USCG to best meet the purpose of and need for the Proposed Action by providing waterfront improvements that meet the USCG's mission requirements. Implementation of Alternative 2 as the Preferred Action Alternative would effectively upgrade existing waterfront facilities so the USCG could accept a planned WCC variant, reduce the USCG's vulnerability to low water levels and large floating woody debris, and would improve operational readiness at SSD Owensboro.

In contrast to Alternative 1 and 3 and the No Action Alternative, the Preferred Action Alternative would have a comparatively greater beneficial effect on air quality and climate, riverbed sediments, water quality, and aquatic wildlife and habitat during operations, because the 25-foot pier extension would eliminate maintenance dredging required to maintain threshold and objective mooring depths. As such, this EA recommends implementation of the Preferred Action Alternative.

The USCG will strive to comply with all EA measures recommended to ensure effects to cultural and natural resources are avoided or minimized and are not significant. If the USCG is unable to complete any recommended measure, or the regulatory findings are other than what have been anticipated and described in this EA, the USCG will supplement the findings of this EA. Additionally, the USCG will not begin any on-shore or in-water work until all regulatory consultation requirements are complete and all required environmental permits have been issued.

Table 6-1. Summary of Potential Effects to Affected Environmental Resources

Environmental Resources and Sub-Category	Alternative 1	Alternative 2 (Preferred Action Alternative)	Alternative 3	No Action Alternative
Air Quality and Climate	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect during construction. Beneficial effect during operations.	Short-term, less-than-significant adverse effect.	No Effect.
Geology and Soils	Long-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect. Beneficial effect during operations.	Long-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.
Water Resources and Water Quality	NEPA: Long-term, less-than-significant adverse effect on river bottom. Short-term, less-than-significant adverse effect on Water Quality. No Effect on Floodplain. No Effect on Wetlands. CWA: Short-term, less-than-significant adverse effect.	NEPA: Long-term, less-than-significant adverse effect on river bottom. Short-term, less-than-significant adverse effect on Water Quality. No Effect on Floodplain. No Effect on Wetlands. Beneficial effect on Water Quality during operations. CWA: Short-term, less-than-significant adverse effect.	NEPA: Long-term, less-than-significant adverse effect on river bottom. Short-term, less-than-significant adverse effect on Water Quality. No Effect on Floodplain. No Effect on Wetlands. CWA: Short-term, less-than-significant adverse effect.	NEPA: Short-term, less-than-significant adverse effect on water quality. CWA: Short-term, less-than-significant adverse effect.

Environmental Resources and Sub-Category		Alternative 1	Alternative 2 (Preferred Action Alternative)	Alternative 3	No Action Alternative
Biological Resources	Federally Listed Species	NEPA: May affect but is not likely to adversely affect mussels or bat species. ESA: May affect but is not likely to adversely affect mussels and no effect on bat species.	NEPA: May affect but is not likely to adversely affect mussels or bat species. ESA: May affect but is not likely to adversely affect mussels and no effect on bat species.	NEPA: May affect but is not likely to adversely affect mussels or bat species. ESA: May affect but is not likely to adversely affect mussels and no effect on bat species.	NEPA: No Effect. ESA: No Effect.
	Aquatic Wildlife and Habitat	Long-term, less-than-significant adverse effect.	Long-term, less-than-significant adverse effect. Beneficial effect during operations.	Long-term, less-than-significant adverse effect.	Long-term, less-than-significant adverse effect.
	Migratory Birds and Raptors	NEPA: No Effect. MBTA: No take.	NEPA: No Effect. MBTA: No take.	NEPA: No Effect. MBTA: No take.	NEPA: No Effect. MBTA: No take.
	Terrestrial Vegetation	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Long-term, less-than-significant adverse effect.	No Effect.
	Noxious Weeds, Aquatic Nuisance Species, and Non-native Invasive Species	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.

Environmental Resources and Sub-Category	Alternative 1	Alternative 2 (Preferred Action Alternative)	Alternative 3	No Action Alternative
Hazardous Material, Human Health and Safety	Short-term, less-than-significant adverse effect. Beneficial effects on human health and safety during operations.	Short-term, less-than-significant adverse effect. Beneficial effects on human health and safety during operations.	Short-term, less-than-significant adverse effect. Beneficial effects on human health and safety during operations.	Long-term, less-than-significant adverse effect.
Noise	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	No Effect.
Transportation	Beneficial effect.	Beneficial effect.	Beneficial effect.	Long-term, less-than-significant adverse effect.
Infrastructure, Utilities, and Services	Beneficial effect.	Beneficial effect.	Beneficial effect.	Long-term, less-than-significant adverse effect.
Visual Resources	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	Short-term, less-than-significant adverse effect.	No effect.
Cultural and Historic Resources	NEPA: No Effect. NHPA: No Adverse Effect.	NEPA: No Effect. NHPA: No Adverse Effect.	NEPA: No Effect. NHPA: No Adverse Effect.	NEPA: No Effect. NHPA: No Effect.

7.0 CONSULTATION AND COORDINATION

NEPA regulations require that federal, state, and local agencies with jurisdiction or special expertise regarding environmental effects be consulted and involved in the NEPA process. The individuals and agencies listed in **Table 7-1** were contacted during the preparation of this EA.

Table 7-1. Consultation and Coordination List

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Table 8-1 provides the list of individuals who contributed to the preparation of this document.

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Woods, A. J., J. M. Omernik, W. H. Martin, G. J. Pond, W.M Andrews, S. M. Call, J.A Comstock, and D. D. Taylor. 2002. Ecoregions of Kentucky (2-sided color poster with map, descriptive text, summary tables, and photographs): Reston, VA, U.S. Geological Survey (map scale 1:1,000,000).

APPENDIX A

Agency and Tribal Consultation and Public Involvement

U.S. Department of Homeland Security
United States Coast Guard

Planning & Real Property Branch Chief
United States Coast Guard
Civil Engineering Unit Cleveland

1240 East Ninth Street,
Room 2179
Cleveland, OH 44199-2060
Phone: 216-902-6200

5090/25-012
22 January 2025

Dear Interested Party:

The U.S. Coast Guard (USCG) currently maintains an inland vessel fleet to enable establishment, maintenance, and repair to aids to navigation (ATON) in interior waters largely inaccessible by other larger and geographically dispersed ATON maintenance units. These inland tenders are also charged with providing quick and effective response to emergencies (e.g., environmental incidents and severe weather events). However, evaluation of these tenders has determined that the vessels have reached the end of their operational service lives. In response, the USCG has initiated the Waterways Commerce Cutter (WCC) Acquisition Program to replace its inland tender fleet with next-generation cutters.

The USCG maintains the current moorings and shore support facilities located on the Ohio River off Kentucky Route 144 in Owensboro, Kentucky. This facility is a USCG-owned existing homeport to a legacy river buoy tender (WLR) Coast Guard Cutter (CGC) Obion. Under the WCC Acquisition Program, the CGC Obion is planned to be replaced by a next-generation WCC-WLR.

The existing homeport in Owensboro will require some waterfront improvements and utility upgrades to accommodate the new WCC-WLR. There is adequate space available to construct shoreside facilities to support the new cutter and crew.

Under this action, the USCG proposes four main components: 1) replace the deck of the existing pier with a deck rated for a higher load capacity (600 pounds per square foot (psf) versus the existing 150 psf); 2) replace the existing floating mooring with a longer floating mooring to accommodate the new WCC WLR variant (200 feet total); 3) replace the existing debris deflector with a more substantial debris deflector; and 4) upgrade shore-side cutter utilities (sewer and electrical). The new debris deflector would involve the construction of stone filled sheet pile cofferdams upstream of the existing mooring, outside of the footprint of past maintenance dredging.

Pursuant to the National Environmental Policy Act (NEPA), the USCG is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects of proposed mooring and shoreside facilities construction as well as the No Action Alternative. The Draft EA is expected to be released for public review in late February 2025. The EA will include the purpose and need for the proposed action; a detailed description of any alternatives under consideration; the affected environment; potential environmental consequences of implementation of the alternatives; and cumulative effects of the project.

The USCG respectfully requests that your agency or organization review the proposed action and provide comments and any available information that your agency or organization may have regarding resources in the project area. At this time, we are seeking input to help identify regulatory concerns, required approvals, and any other relevant information. Please provide any comments by 5:00 pm on 10 February 2025 to Mr. Colin Fishbaugh by e-mail at colin.a.fishbaugh@uscg.mil.

Sincerely,

Justin S. Davis, Lieutenant
Planning & Real Property Branch Chief
U.S. Coast Guard

Enclosures: Figure 1 – Regional Location
Figure 2 – USCG Station Owensboro Facility

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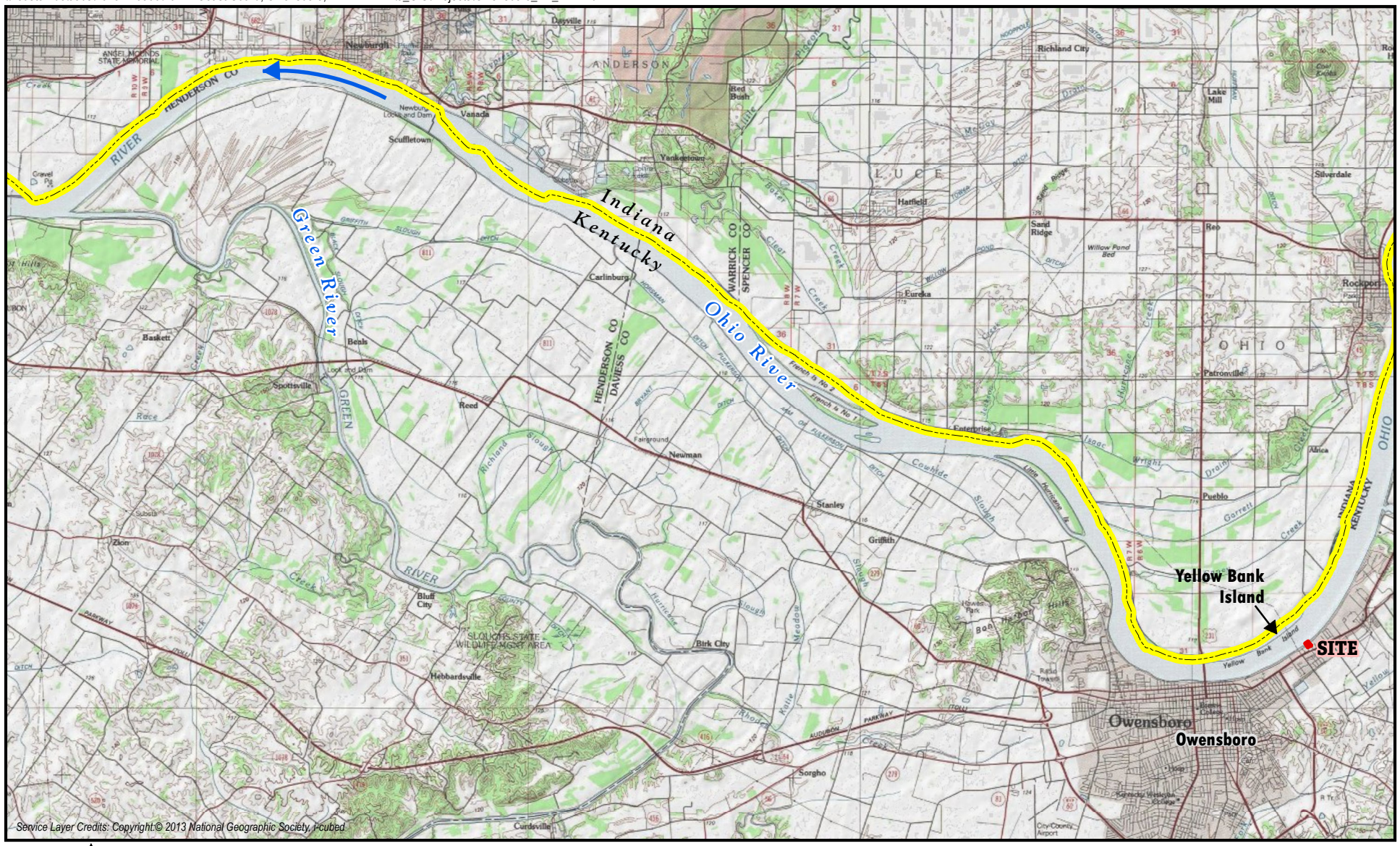

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Location Map
USCG WCC Homeport and
Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 1

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GSI ENVIRONMENTAL

Project Area
Site

Site Map
USCG WCC Homeport and Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 2

Outlook

FW: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

From Meghan T. Wirth <MTWirth@gsi-net.com>
Date Mon 2/3/2025 12:19 PM
To Melissa S. Huntington <MSHuntington@gsi-net.com>
Cc Laura Pfister <lPfister@gsi-net.com>

FYI

Meghan T. Wirth
Senior Biologist

GSI Environmental Inc.

O 406.481.8040 | **C** 406.459.9908

From: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Sent: Monday, February 3, 2025 7:36 AM
To: Meghan T. Wirth <MTWirth@gsi-net.com>; Cris Q. Surbeck <cqsurbeck@gsi-net.com>; Bailey Campbell <bcampbell@gsi-net.com>
Subject: FW: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

FYI just received this for the USACE contact for Owensboro KY.

Best,

Colin Fishbaugh, RA, NCARB
Planner / Architect
USCG CEU Cleveland
Phone: 206-836-1986
E-mail: colin.a.fishbaugh@uscg.mil

From: Knuckles, Meagan L CIV USARMY CELRL (USA) <Meagan.L.Knuckles@usace.army.mil>
Sent: Monday, February 3, 2025 9:32
To: Bailey Campbell <bcampbell@gsi-net.com>
Cc: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>; Atherton, Sarah E CIV USARMY CELRL (USA) <Sarah.E.Atherton@usace.army.mil>
Subject: RE: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

Hello,

Sarah Atherton has been assigned to this request. She is copied on this email.

Thanks!

Meagan Knuckles
Chief, South Branch
Regulatory Division
U.S. Army Corps of Engineers, Louisville District
Phone: 502-315-6709

Cell: 502-468-9062

Visit our website: www.lrd.usace.army.mil

From: Bailey Campbell <bcampbell@gsi-net.com>
Sent: Friday, January 24, 2025 2:31 PM
To: Bailey Campbell <bcampbell@gsi-net.com>
Cc: Colin.A.Fishbaugh@uscg.mil
Subject: [Non-DoD Source] Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

Dear Interested Party,

Please find attached a letter from the US Coast Guard (USCG) describing a proposed action at USCG Station Owensboro located in Owensboro, Kentucky on the Ohio River.

As outlined in the letter, pursuant to the National Environmental Policy Act (NEPA), the USCG is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects of proposed mooring and shoreside facilities construction as well as the No Action Alternative. The USCG respectfully requests that your agency or organization review the proposed action and provide comments and any available information that your agency or organization may have regarding resources in the project area.

As directed in the attached letter, please send comments to Colin Fishbaugh (Colin.A.Fishbaugh@uscg.mil). Please do not reply to this email.

Outlook

FW: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

From Meghan T. Wirth <MTWirth@gsi-net.com>
Date Tue 1/28/2025 2:02 PM
To Laura Pfister <lPfister@gsi-net.com>; Bailey Campbell <bcampbell@gsi-net.com>; Melissa S. Huntington <MSHuntington@gsi-net.com>

Our first reply.

Meghan T. Wirth
Senior Biologist

GSI Environmental Inc.

O 406.481.8040 | **C** 406.459.9908

From: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Sent: Tuesday, January 28, 2025 1:46 PM
To: Tom Tollison <tom.tollison@jmcfirm.com>; Cris Q. Surbeck <cqsurbeck@gsi-net.com>; Meghan T. Wirth <MTWirth@gsi-net.com>; Jack Dodd <jack.dodd@jmcfirm.com>
Cc: Kaminski, Andrew CIV USCG SILC (USA) <Andrew.Kaminski@uscg.mil>; Davis, Justin S LT USCG CEU CLEVELAND (USA) <Justin.S.Davis@uscg.mil>
Subject: FW: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

FYI

Best,

Colin Fishbaugh, RA, NCARB
Planner / Architect
USCG CEU Cleveland
Phone: 206-836-1986
E-mail: colin.a.fishbaugh@uscg.mil

From: Vanessa Bryant <Vanessa.Bryant@chickasaw.net> **On Behalf Of** HPO
Sent: Tuesday, January 28, 2025 15:11
To: Bailey Campbell <bcampbell@gsi-net.com>; Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Cc: HPO <HPO@chickasaw.net>
Subject: [Non-DoD Source] RE: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

Thank you for your inquiry. We have reviewed the data you provided and determined that we do not request government-to-government consultation on this specific proposed project as it is outside of our area of interest. While the Chickasaw Nation has no objection to the undertaking, we respectfully defer to the federally recognized First American tribe(s) that have identified a connection to the project area. We appreciate your efforts to preserve and protect significant historic properties. If you have any questions, please contact Ms. Karen Brunso, tribal historic preservation officer, at (580) 272-1106 or by email at hpo@chickasaw.net.

From: Bailey Campbell <bcampbell@gsi-net.com>
Sent: Friday, January 24, 2025 1:31 PM
To: Bailey Campbell <bcampbell@gsi-net.com>
Cc: Colin.A.Fishbaugh@uscg.mil
Subject: Scoping Letter for Proposed Action at USCG Station Owensboro, Kentucky

Dear Interested Party,

Please find attached a letter from the US Coast Guard (USCG) describing a proposed action at USCG Station Owensboro located in Owensboro, Kentucky on the Ohio River.

As outlined in the letter, pursuant to the National Environmental Policy Act (NEPA), the USCG is preparing an Environmental Assessment (EA) to evaluate the potential environmental effects of proposed mooring and shoreside facilities construction as well as the No Action Alternative. The USCG respectfully requests that your agency or organization review the proposed action and provide comments and any available information that your agency or organization may have regarding resources in the project area.

As directed in the attached letter, please send comments to Colin Fishbaugh (Colin.A.Fishbaugh@uscg.mil). Please do not reply to this email.

Outlook

FW: USCG Station - Owensboro, KY - LRL-1995-01739-sea

From Meghan T. Wirth <MTWirth@gsi-net.com>
Date Fri 2/7/2025 10:41 AM
To Melissa S. Huntington <MSHuntington@gsi-net.com>
Cc Laura Pfister <lPfister@gsi-net.com>

2 attachments (278 KB)
LRL-1995-01739 Env Rev Ltr.pdf; RE: USCG Station - Owensboro, KY - LRL-1995-01739-sea (41.7 KB);

Scoping letter response from the US Army Corps.

Meghan T. Wirth
Senior Biologist

GSI Environmental Inc.

O 406.481.8040 | **C** 406.459.9908

From: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Sent: Wednesday, February 5, 2025 6:31 AM
To: Meghan T. Wirth <MTWirth@gsi-net.com>; Cris Q. Surbeck <cqsurbeck@gsi-net.com>; Tom Tollison <tom.tollison@jmcfirm.com>; Jack Dodd <jack.dodd@jmcfirm.com>
Cc: Kaminski, Andrew CIV USCG SILC (USA) <Andrew.Kaminski@uscg.mil>
Subject: FW: USCG Station - Owensboro, KY - LRL-1995-01739-sea

Good morning everyone,

I received this response from the Army Corps yesterday and have also attached the email I received on a response I sent over regarding what they need for the permit down the road and the EA.

Best,

Colin Fishbaugh, RA, NCARB
Planner / Architect
USCG CEU Cleveland
Phone: 206-836-1986
E-mail: colin.a.fishbaugh@uscg.mil

From: Atherton, Sarah E CIV USARMY CELRL (USA) <Sarah.E.Atherton@usace.army.mil>
Sent: Tuesday, February 4, 2025 13:24
To: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Subject: USCG Station - Owensboro, KY - LRL-1995-01739-sea

Mr. Fishbaugh,

Please see the attached response to your request. If you have any questions, please let me know.

Sarah Atherton
Regulatory Specialist, Regulatory Division
U.S. Army Corps of Engineers, Louisville District
Office: 502-315-6711
Cell: 502-407-9243
http://www.lrl.usace.army.mil/Missions/Regulatory/

Mailing Address:

U.S. Army Corps of Engineers
Louisville District
CELRL-RDS, Room 183
P.O. Box 59
Louisville, KY 40201
or
600 Dr. M. L. King Jr. Place
Louisville, KY 40202

Please comment on our service. Our National Customer Service Survey is located at https://regulatory.ops.usace.army.mil/customer-service-survey/

Visit our website: www.lrd.usace.army.mil

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR PL
LOUISVILLE, KY 40202

February 4, 2024

Regulatory Division
South Branch
ID No. LRL-1995-01739-sea

Mr. Colin Fishbaugh
U.S. Coast Guard (USCG)
1240 East Ninth Street, Room 2179
Cleveland, Ohio 44199
Colin.a.fishbaugh@uscg.mil

Dear Mr. Fishbaugh:

This is in response to your request dated January 22, 2025, concerning a proposal to perform waterfront improvements and utility upgrades to the existing USCG shore support facility located on the left descending bank of the Ohio River at river mile 753.7 in Owensboro, Daviess County, Kentucky (Latitude: 37.78731°N; Longitude: 87.07384°W).

The U.S. Army Corps of Engineers (USACE) exercises regulatory authority under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act, 1972 (33 USC 1344) for certain activities in "waters of the United States (U.S.)." These waters include all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce. "Waters of the U.S." include hydrologically connected lakes, rivers, and stream channels exhibiting an Ordinary High Water Mark (OHWM); wetlands; sloughs; and wet meadows and wetlands adjacent to "waters of the U.S."

Based on the information provided by you in the above-referenced request, a Department of the Army (DA) Permit would be required. We will need a completed DA permit application along with additional details regarding the project's design, scope, construction methods, purpose and a delineation of all "waters of the U.S.," including the coordinates and locations of each "water" within the proposed project area and all impacts to waters (linear feet, width and acreage).

To submit your DA Permit application electronically, you can visit the following website https://rrs.usace.army.mil/rrs. As an alternative you can save documents as a PDF and submit as an attachment to CELRL.Door.To.The.Corps@usace.army.mil.

Our comments on this project are limited to only those effects which may fall within our area of jurisdiction and thus does not obviate the need to obtain other permits from State or local agencies.

Further information on the Regulatory Program, including the DA Permit application, can be obtained from our website at https://www.lrd.usace.army.mil/Wetlands-Permits/. Please allow sufficient time in your preconstruction schedule for the processing of a DA permit application.

Your request has been assigned ID No. LRL-1995-01739-sea. Please reference this number on all correspondence pertaining to this project. Please contact us by writing to the District Regulatory Office at the above address, ATTN: CELRL-RDS, or contact me directly at (502) 315-6711 or Sarah.E.Atherton@usace.army.mil.

Sincerely,

Date: 2025.02.04 13:23:02 -05'00'

Sarah Atherton
Project Manager, South Branch
Regulatory Division

Melissa S. Huntington

From: Atherton, Sarah E CIV USARMY CELRL (USA) <Sarah.E.Atherton@usace.army.mil>
Sent: Wednesday, February 5, 2025 6:04 AM
To: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA)
Subject: RE: USCG Station - Owensboro, KY - LRL-1995-01739-sea

Good morning,

Some items that you will want to make sure you include in your EA review is coordination and concurrence for Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, and Section 401 of the Clean Water Act. In addition, we will need PE stamped drawings showing the structures and the maximum riverward projection of the new/reconstructed structures. If you have any other questions, let me know.

Sarah

From: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Sent: Tuesday, February 4, 2025 1:56 PM
To: Atherton, Sarah E CIV USARMY CELRL (USA) <Sarah.E.Atherton@usace.army.mil>
Subject: RE: USCG Station - Owensboro, KY - LRL-1995-01739-sea

Hi Sarah,

Thank you for the response. I will forward your response to our consultants to include with their report. Is there anything required for the current environmental assessment? Or is this permit required prior to the construction of the homeport updates?

We are in the beginning stages of planning for the updates to our WCC Homeport with an anticipated start of construction not happening until after 2030. We are getting started with the Environmental Assessment and preliminary planning to send on to our design team.

Best,

Colin Fishbaugh, RA, NCARB
Planner / Architect
USCG CEU Cleveland
Phone: 206-836-1986
E-mail: colin.a.fishbaugh@uscg.mil

From: Atherton, Sarah E CIV USARMY CELRL (USA) <Sarah.E.Atherton@usace.army.mil>
Sent: Tuesday, February 4, 2025 13:24
To: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Subject: USCG Station - Owensboro, KY - LRL-1995-01739-sea

Mr. Fishbaugh,

Please see the attached response to your request. If you have any questions, please let me know.

Sarah Atherton
Regulatory Specialist, Regulatory Division

U.S. Army Corps of Engineers, Louisville District
Office: 502-315-6711
Cell: 502-407-9243
http://www.lrl.usace.army.mil/Missions/Regulatory/

Mailing Address:

U.S. Army Corps of Engineers
Louisville District
CELRL-RDS, Room 183
P.O. Box 59
Louisville, KY 40201
or
600 Dr. M. L. King Jr. Place
Louisville, KY 40202

Please comment on our service. Our National Customer Service Survey is located at https://regulatory.ops.usace.army.mil/customer-service-survey/

Visit our website: www.lrd.usace.army.mil

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR PL
LOUISVILLE, KY 40202

February 4, 2024

Regulatory Division
South Branch
ID No. LRL-1995-01739-sea

Mr. Colin Fishbaugh
U.S. Coast Guard (USCG)
1240 East Ninth Street, Room 2179
Cleveland, Ohio 44199
Colin.a.fishbaugh@uscg.mil

Dear Mr. Fishbaugh:

This is in response to your request dated January 22, 2025, concerning a proposal to perform waterfront improvements and utility upgrades to the existing USCG shore support facility located on the left descending bank of the Ohio River at river mile 753.7 in Owensboro, Daviess County, Kentucky (Latitude: 37.78731°N; Longitude: 87.07384°W).

The U.S. Army Corps of Engineers (USACE) exercises regulatory authority under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act, 1972 (33 USC 1344) for certain activities in "waters of the United States (U.S.)." These waters include all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce. "Waters of the U.S." include hydrologically connected lakes, rivers, and stream channels exhibiting an Ordinary High Water Mark (OHWM); wetlands; sloughs; and wet meadows and wetlands adjacent to "waters of the U.S."

Based on the information provided by you in the above-referenced request, a Department of the Army (DA) Permit would be required. We will need a completed DA permit application along with additional details regarding the project's design, scope, construction methods, purpose and a delineation of all "waters of the U.S.," including the coordinates and locations of each "water" within the proposed project area and all impacts to waters (linear feet, width and acreage).

To submit your DA Permit application electronically, you can visit the following website https://rrs.usace.army.mil/rrs. As an alternative you can save documents as a PDF and submit as an attachment to CELRL.Door.To.The.Corps@usace.army.mil.

Our comments on this project are limited to only those effects which may fall within our area of jurisdiction and thus does not obviate the need to obtain other permits from State or local agencies.

Further information on the Regulatory Program, including the DA Permit application, can be obtained from our website at https://www.lrd.usace.army.mil/Wetlands-Permits/. Please allow sufficient time in your preconstruction schedule for the processing of a DA permit application.

Your request has been assigned ID No. LRL-1995-01739-sea. Please reference this number on all correspondence pertaining to this project. Please contact us by writing to the District Regulatory Office at the above address, ATTN: CELRL-RDS, or contact me directly at (502) 315-6711 or Sarah.E.Atherton@usace.army.mil.

Sincerely,

Date: 2025.02.04 13:23:02 -05'00'

Sarah Atherton
Project Manager, South Branch
Regulatory Division

Outlook

FW: [Non-DoD Source] Section 106 Consultation - USCG Station Owensboro, Kentucky

From Meghan T. Wirth <MTWirth@gsi-net.com>
Date Wed 2/19/2025 11:18 AM
To Melissa S. Huntington <MSHuntington@gsi-net.com>
Cc Bailey Campbell <bcampbell@gsi-net.com>; Laura Pfister <lPfister@gsi-net.com>

Hi Melissa,

Below is the Shawnee Tribe's response to the scoping letter for the USCG EA. Could you please save to the project file?

Meghan T. Wirth
Senior Biologist

GSI Environmental Inc.

O 406.481.8040 | **C** 406.459.9908

From: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Sent: Wednesday, February 19, 2025 10:56 AM
To: Meghan T. Wirth <MTWirth@gsi-net.com>
Subject: FW: [Non-DoD Source] Section 106 Consultation - USCG Station Owensboro, Kentucky

Hi Meghan,

Just received this response for the Owensboro PDEA and just wanted to forward for your record!

Best,

Colin Fishbaugh, RA
Planner / Architect
USCG CEU Cleveland
Phone: 206-836-1986
E-mail: colin.a.fishbaugh@uscg.mil

From: Laserfiche Notification <donotreply@laserfiche.com>
Sent: Wednesday, February 19, 2025 12:12
To: Fishbaugh, Colin A CIV USCG CEU CLEVELAND (USA) <Colin.A.Fishbaugh@uscg.mil>
Subject: [Non-DoD Source] Section 106 Consultation - USCG Station Owensboro, Kentucky

This email is in response to USCG Station Owensboro, Kentucky.
The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. However, there is still potential for the discovery of unknown resources.

We have no issues or concerns at this time. Please continue with the project as planned, but in the event archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume immediate consultation under such a circumstance.

If you have any questions, you may contact me via email at [http://Section106@shawnee-tribe.com%20]Section106@shawnee-tribe.com

Thank you for giving us the opportunity to comment on this project

Erin Paden
TRIBAL HISTORIC PRESERVATION SPECIALIST
Office: (918) 542-2441, x140
Email: epaden@shawnee-tribe.com
29 S Hwy 69A
Miami, OK 74354
shawnee-tribe.com

U.S. Department of Homeland Security
United States Coast Guard

Planning & Real Property Branch Chief
United States Coast Guard
Civil Engineering Unit Cleveland

1240 East Ninth Street,
Room 2179
Cleveland, OH 44199-2060
Phone: 216-902-6200

5090/25-004
7 January 2025

U.S. Fish and Wildlife Service
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Attn: Mr. Taylor Fagin, Fish and Wildlife Biologist

Dear Mr. Fagin,

The purpose of this letter is to solicit comments regarding the United States Coast Guard's (USCG) intent to conduct waterfront improvements at the USCG Station Owensboro (Site) in Owensboro, Daviess County, Kentucky (Proposed Action). The USCG is preparing an Environmental Assessment (EA) to evaluate the potential effects associated with the Proposed Action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code §4321 et seq.), the Council on Environmental Quality Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and USCG Commandant Instruction (COMDTINST) M16475.1D, Implementing Procedures and Policy for Considering Environmental Impacts. With this letter, the USCG is initiating consultation with your office pursuant to Section 7 of the Endangered Species Act of 1973, as amended.

SITE LOCATION

The Site is located on the southern shoreline of the Ohio River at 3301 KY-144, Owensboro, Kentucky; approximately 2.5 miles northeast of the Owensboro city center and approximately 0.6-miles from the city limit boundary (**Figure 1**). The proposed Project Area includes an existing pier, floating mooring, and shoreside utilities and can be accessed using the USCG driveway via East 4th Street (Kentucky Highway 144) (**Figure 2**).

PROJECT BACKGROUND

The Site currently serves as the dock for the USCG Cutter Obion, hull No. WLR-65503. The main mission of the Obion and its crew is to maintain federal aids to navigation (buoys and lights) of approximately 600 river miles of the Ohio and Green Rivers. The USCG's current tender fleet consists of 35 tenders, including the Obion, that support the Service's aids to navigation (ATON) mission in federal inland waters. These tenders play a vital role in directing traffic of the Nation's Marine Transportation System (MTS) and support the U.S. economy by facilitating the efficient

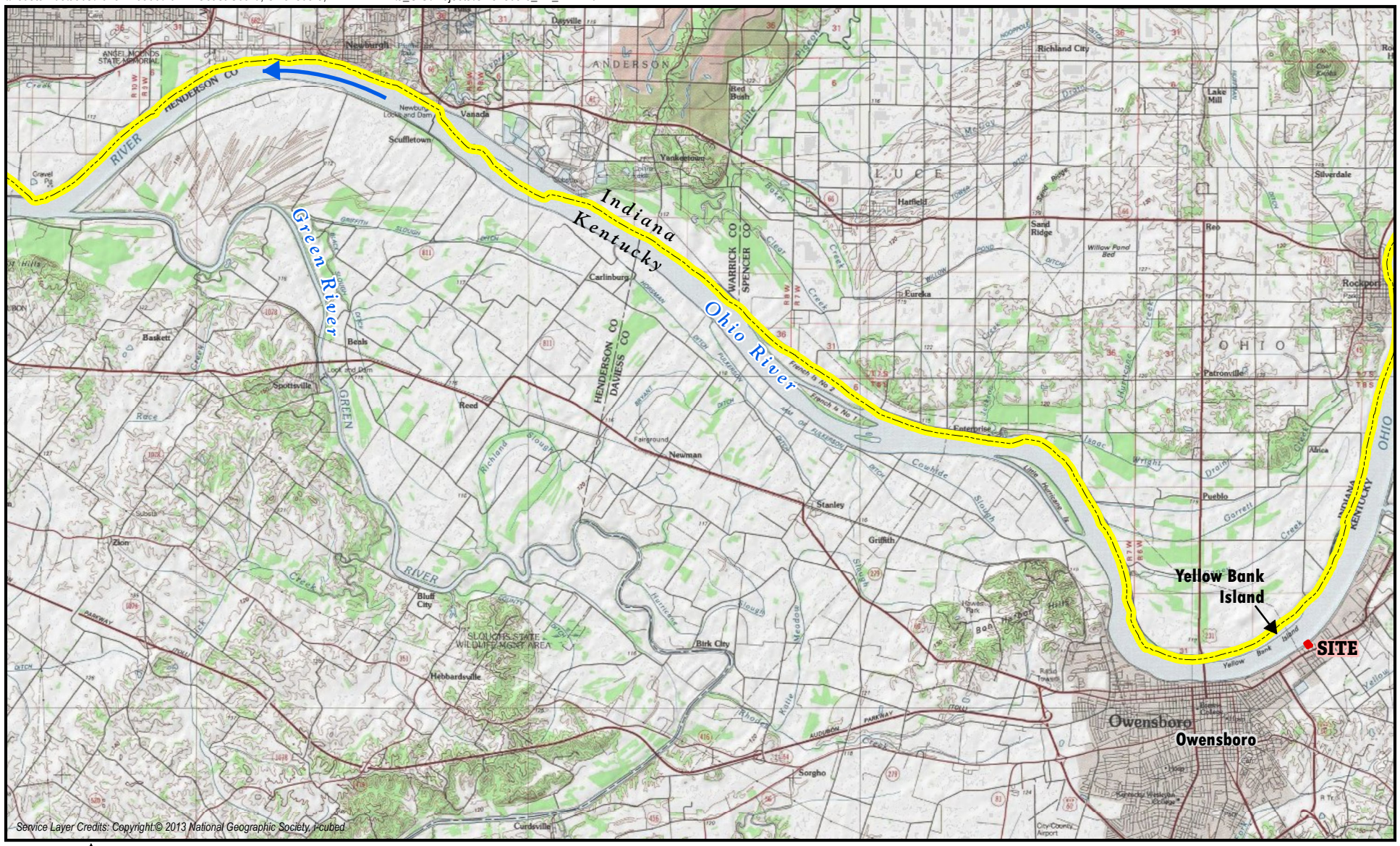
flow of goods nationwide. The inland tenders can also perform missions including search and rescue; ports, waterways and coastal security; and marine environmental protection, enabling them to efficiently and effectively respond to emergencies such as environmental incidents and severe storm events. However, the average age of USCG's current fleet of inland tenders is more than 57 years and is in a state of obsolescence, resulting in rising maintenance costs.

In addition to age concerns and associated equipment obsolescence issues, the existing fleet presents other sustainment challenges, including hazardous materials stemming from the use of asbestos and lead paint during construction of these assets. Outdated technology and vessel designs have also led to crew safety concerns and noncompliance with environmental regulations. Lastly, vessel configuration does not allow the assignment of mixed gender crews in accordance with the USCG's workforce goals. The USCG WWC Program is replacing the existing inland tenders with 16 River Buoy Tenders (i.e., WLRs), 11 Inland Construction Tenders (WLICs), and three Inland Buoy Tenders (WLIs). The new WCCs will feature improved habitability and will better accommodate mixed-gender crews. The Project would provide a dedicated homeport berth on the Ohio River designed to accommodate an incoming Waterways Commerce Cutter (WCC) River Buoy Tender (WLR) variant in Owensboro, Kentucky.

The Obion is slated for replacement by a new WCC WLR in FY2032. The existing CGC moorings and facilities have numerous challenges to overcome for legacy WLR operations. In addition to facility and utility challenges, the Owensboro mooring dock accumulates substantial debris from upriver. A debris deflector was designed and installed but failed after a few years of operation.

The site is subject to water level fluctuations of 20-feet or more. The water level at the pier averages 12 feet deep. The new WCC will require 8 to 10 feet of water. The water level at the furthest downriver piling is currently 7 feet deep which is too shallow to navigate the Obion or future WCC. As is, the USCG must approach the existing pier in such a way as to avoid the shallow portion of the waterfront. The area under the pier was dredged approximately 1 year ago and will need to be dredged again in spring 2025. **Attachment A** contains a copy of the Department of the Army permit received by the USCG to conduct dredging within a 100' x 200' area.

\\houston-dc\Jobs\10251-10300\10271 Coast Guard, Owensboro, KY NEPA EA\5_GIS\Projects\Owensboro_KY_EA.mxd



N

0 3

Miles

GSI ENVIRONMENTAL

Location Map
USCG WCC Homeport and
Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 1

\\houston-dc\Jobs\10251-10300\10271 Coast Guard, Owensboro, KY NEPA EA\5_GIS\Projects\Site_Map_Owensboro_KY_EA.mxd

N

0 200

Feet

GSI ENVIRONMENTAL

Project Area

Site

Site Map
USCG WCC Homeport and Shore Facility Infrastructure
Owensboro, Kentucky
FIGURE 2

PROPOSED ACTION AND ACTION AREA

The proposed action area is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50CFR§402.02). The Proposed Action would occur in a previously disturbed and developed river porting area that is heavily used for industrial and docking activities. The proposed action area includes an existing pier, floating mooring, and shoreside utilities (See 'Project Area' in **Figure 2**). The USCG Station Owensboro has operated continuously since 1994.

In addition to industrial activities, recent dredging within the 100' x 200' area in front of the floating mooring has further disturbed the aquatic environment. These waters at the USCG Station Owensboro, which constitute the action area, would provide low quality habitat, given the frequent vessel activities and human disturbances.

The Proposed Action includes four main components: 1) replace the deck of the existing pier with a deck rated for a higher load capacity (600 pounds per square foot (psf) versus the existing 150 psf); 2) replace the existing floating mooring with a longer floating mooring to accommodate the new WCC WLR variant (200 feet total); 3) replace the existing debris deflector with a more substantial debris deflector; and 4) upgrade shore-side cutter utilities (sewer and electrical). The new debris deflector would involve the construction of stone filled sheet pile cofferdams upstream of the existing mooring, outside of the footprint of past maintenance dredging.

A Planning Proposal is underway by the USCG to define the requirements, scope, analysis of alternatives, and cost estimates needed to provide facilities necessary for a Full Operating Capability (FOC) Homeport required for one new WCC WLR at the Site. The facilities and estimated costs will be developed as part of a Feasibility Study managed by the USCG.

The purpose of the Proposed Action is to provide the necessary homeport improvements to accommodate the new WCC WLR at the existing homeport, maintain the viability of the Owensboro Station, and meet the USCG mission requirements at the Owensboro Station. The Proposed Action is needed to address insufficient load capacity of the existing pier deck, insufficient water depths at the existing floating mooring, the turning basin in front of the Owensboro Station, and the vessel berth area at the pier and floating mooring. The Proposed Action is also needed to deflect large woody debris from accumulating at the floating mooring, so that USCG mission requirements may be carried out. The waterfront facilities, which connect to the Owensboro Station's upland storage area and building, are used currently to store the ATON devices. As the only USCG station in the area, the waterfront facilities need to be accessible by the USCG vessel and have the appropriate facilities to meet USCG mission requirements.

ESA LISTED SPECIES IN THE ACTION AREA AND EFFECTS DETERMINATION

The Proposed Action would have the potential to affect resources under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS). The USFWS Information for Planning and Consultation (IPaC) system was consulted on November 25, 2024 (updated December 17, 2024), for an official list of threatened and endangered species, critical habitat, or migratory birds that could be affected by the proposed Project (**Attachment B**). The Official Species List contains a total of 11

threatened, endangered, or candidate species. No federally designated critical habitat for these species occurs within or near the Project Area.

On October 16, 2024, Meghan Wirth (Senior Biologist with GSI Environmental Inc.) conducted a site reconnaissance survey to identify potential wildlife habitat and characterize existing conditions at the proposed action area. Site photographs are provided in **Attachment C**. On December 19, 2024, Ms. Wirth had a pre-development call (via Microsoft Teams) with Mr. Taylor Fagin, Fish and Wildlife Biologist with the USFWS Kentucky Ecological Services Field Office. Mr. Taylor provided information on which federally listed mussel species may be in the action area.

Freshwater Mussels

Since freshwater mussels are sedentary filter feeders, they are extremely susceptible to changes in water quality and require clean, well-oxygenated, relatively silt-free water and substrate. Dredging increases siltation which may smother mussels, choke out food sources, or harm their host fish. According to soil boring logs available for the Site, soil in the top 50 feet of soil (below ground surface) is primarily composed of silt and fine grain sand. Soil borings were located between 50 to 150 feet from the edge of water and upland within the Project Area and are an approximate representation of existing conditions at the pier.

The riverine system within the Project Area is characterized by an unconsolidated bottom, in that mud, silt, or similar fine particles (less than 6 to 7 cm) cover at least 25 percent of the bottom and vegetation cover less than 30 percent (USFWS 2024a). Oxygen deficits in these systems may sometimes occur (USFWS 2024a). Unconsolidated bottom features often result in poor structure for benthic habitat.

The shoreline of the Project Area is steep and comprised of large boulders (riprap) and is densely covered in drifted coarse woody debris from wave action and water level fluctuations that repeatedly disturb the ground surface at the water edge. Due to factors above and ongoing disturbances at the Project Area from vessel and operational activities (e.g., maintenance dredging, anchoring), it is unlikely that suitable habitat for freshwater mussels would be present. The following species-specific habitat requirements and distribution are briefly described below.

Fanshell Mussel

According to the USFWS five-year review of the species (USFWS 2008), the nearest known recent (since 2000) record of live fanshells within the mainstem Ohio River was observed approximately 466 river miles upstream of the Project Area. The Ohio River appears to have small and restricted, extant populations with limited evidence of recruitment. Mr. Fagin confirmed he would not expect to find fanshell mussels within the proposed action area based on survey results within this stretch of the Ohio River. It is concluded that the Proposed Action *may affect but is not likely to adversely affect* the fanshell mussel.

Longsolid Mussel

Longsolid mussels show a preference for sand and gravel in streams and small rivers but may also be found in coarse gravel. In large rivers, they are commonly found at depths of 12 to 18 feet but

are also found at depths over 20 feet. According to the USFWS status review of the species and Final Rule (88 FR 14794), the Project Area is within one of 45 management units where the longsolid is currently considered extant (i.e., still in existence) (FR 2023). However, during the December 19, 2024, conference call, Mr. Fagin confirmed he would not expect to find longsolid mussels within the proposed action area based on survey results within this stretch of the Ohio River. It is concluded that the Proposed Action *may affect but is not likely to adversely affect* the longsolid mussel.

Pink Mucket

Pink mucket live in sediment comprised of sand, gravel, or cobble in flows of streams and large rivers. The depth of the water can vary from 1 inch to 5 feet deep. On the lower Ohio River in Kentucky, the population is unknown; however, according to a 5-year Status Review by the USFWS, the pink mucket is possibly extirpated in the portion of the Ohio River that includes the Project Area (USFWS 2024b). Mr. Fagin confirmed he would not expect to find pink mucket mussels within the proposed action area based on survey results within this stretch of the Ohio River. It is concluded that the Proposed Action *may affect but is not likely to adversely affect* the pink mucket.

Orangefoot Pimpleback

Orangefoot pimpleback are restricted to silt-free sand or gravel substrates in clean, fast flowing main channel habitats of large and relatively deep rivers (Haag & Cicerello 2016). This species is very rare, even where it is known to occur (USFWS 2018). According to the Kentucky Nature Preserves Commission Kentucky Mussel Atlas (Haag & Cicerello 2016), the distribution of the orangefoot pimpleback did not include Daviess County between 1990 and 2015. It persists in the Ohio River only in the short, free-flowing lower section and adjacent reaches downstream of the confluence of the Tennessee River (USFWS 2018). Between 1990 and 2015, the known distribution of this species was in the Ohio River approximately 170 river miles downstream and approximately 140 river miles upstream of the Project Area (Haag & Cicerello 2016). Mr. Fagin confirmed he would not expect to find Orangefoot Pimpleback within the proposed action area based on survey results within this stretch of the Ohio River. It is concluded that the Proposed Action *may affect but is not likely to adversely affect* the orangefoot pimpleback.

Sheepnose

Sheepnose mussels are restricted to main-channel habitats in medium to large stream systems, typically within shallow shoal habitats with moderate to swift currents. This species prefers a mixture of coarse sand, gravel, and clay substrate. They occupy a range of depths from a riffle to deep runs that exceed 20 feet (USFWS 2022). According to the Kentucky Nature Preserves Commission Kentucky Mussel Atlas (Haag & Cicerello 2016), the distribution of the sheepnose included Daviess County between 1990 and 2015. The Project Area is within an approximate 80 river mile stretch of the Ohio River that is considered to have extant populations based on observations from 2000 to 2020 (USFWS 2022). Mr. Fagin confirmed that there is potential for

the sheepnose mussel to occur within the proposed action area where maintenance dredging has not occurred. It is concluded that the Proposed Action *may affect* the sheepnose.

Rabbitsfoot

Rabbitsfoot mussels primarily inhabit gravel and sand substrates in small to medium sized streams and some larger rivers. They typically occur in shallow waters along streambanks and adjacent runs and shoals with reduced water velocity (USFWS 2024c). Individuals may also occupy deep water runs, having been reported in 9-12 feet of water. They seldom burrow in substrates but lie on their side at soil surface. Rabbitsfoot are a sedentary species with small, seasonal movements toward shallower water during brooding period (May to late August). According to the Kentucky Nature Preserves Commission Kentucky Mussel Atlas (Haag & Cicerello 2016), the distribution of the rabbitsfoot included Daviess County between 1990 and 2015. Mr. Fagin confirmed that there is potential for the rabbitsfoot mussel to occur within the proposed action area where maintenance dredging has not occurred. It is concluded that the Proposed Action *may affect* the rabbitsfoot.

Bats

The IPaC query returned a list of three federally listed bat species with potential to occur within the Project Area; gray bat, Indiana bat, and tricolored bat. Of these species, the gray bat and Indiana bat, should be considered for an effects analysis only if the Project Area includes potential habitat (**Attachment B**). A habitat assessment was conducted using *General Project Design Guidelines for Indiana Bat and Three Species* to determine whether potential habitat exists within the Project Area. Potential habitat for bat species includes:

- Caves, rock shelters, abandoned min portals, or similar features
- Buildings, bridges, and culverts
- Forested habitat
- Streams, lakes, rivers, ponds, and wetlands

The Project Area/proposed action area (see **Figure 2**) does not contain buildings, but does contain a pier, and a small component of forested riparian vegetation that are potential habitat for bat species. Given that the Ohio River shoreline is included in the Project Area, the gray bat, Indiana bat, and tricolored bat were included in an effects analysis.

The proposed Project Area does not contain preferred or suitable wintering habitat for the Indiana bat, gray bat, or tricolored bat due to the lack of cave or karst features or large diameter standing dead trees. Available forested habitat within the site is fragmented and lacks standing dead trees. Yellow Bank Island, located approximately 0.5-mile northwest of the proposed Project Area in the Ohio River, is the nearest continuous, densely forested area. Yellow Bank Island is likely preferred habitat relative to the sparsely vegetated Project Area and location within a developed industrial area. According to the USFWS *Range-wide Indiana Bat & Northern Long-eared Bat Survey Guidelines* (2024), trees found in highly developed urban areas are extremely unlikely to be

suitable habitat (USFWS 2024c). Because tree removal is not an activity associated with the Proposed Action, the Proposed Action would have *no effect* on bat habitat.

Where caves are sparse, Indiana bats and tricolored bats are occasionally found roosting in road-associated culverts or other manmade structures (e.g., bridges). Activities associated with the Proposed Action could directly affect bats potentially utilizing these structures as roosting sites. However, highly developed urbanized areas generally devoid of native vegetation (including isolated trees surrounded by expansive anthropogenic development) are considered unsuitable habitat (e.g., industrial buildings, parking lots) (USFWS 2024c). There are no culverts within the proposed action area. The USCG would visually inspect the underside of the existing pier prior to demolition or construction of new structures to minimize potential effects on bat species. According to bat survey guidelines (USFWS 2024c), bridge surveys are an acceptable survey method year-round.

Indirect effects to bats, such as noise disturbance from human activities, are unlikely to cause adverse effects because bats are nocturnal. Construction and other Proposed Action activities would occur during daylight hours. Given the current land use and operational activities at the site (e.g., loading and unloading of vessels, boat and pier traffic, maintenance dredging), disturbance from the Proposed Action would be negligible and not affect bats relative to existing conditions and operational activities at the Site. It is concluded that the Proposed Action *may affect but is not likely to adversely affect* bat species.

Whooping Crane

The whooping crane is an experimental population, non-essential. Because the proposed action area is not located within a wildlife refuge, the Proposed Action would have *no effect* on whooping crane.

Monarch Butterfly

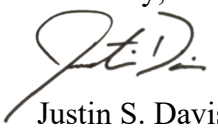
The Proposed Action would not disturb upland areas; therefore, the Proposed Action would have *no effect* on Monarch butterfly.

CONCLUSIONS

The USCG requests USFWS review and concurrence with the effects determination stated in this letter. If there is anything we need to do to facilitate the Proposed Action without negatively affecting federally listed species that is not mentioned in this letter, please let us know within **thirty (30) days** of receipt of this letter to enable us to complete this phase of the project within the scheduled timeframe.

The USCG has contracted GSI Environmental Services, Inc. (GSI) to facilitate the NEPA process. If you have information relevant to the development of the EA, please direct your correspondence to Ms. Meghan Wirth at GSI, via (406) 459-9908 or mtwirth@gsienv.com.

Sincerely,



Justin S. Davis, Lieutenant
Planning & Real Property Branch Chief
U.S. Coast Guard

ATTACHMENTS

Attachment A – Department of the Army Permit

Attachment B – Official Species List

Attachment C – Site Photographs

REFERENCES

Federal Register (FR). 2023. Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for Longsolid and Round Hickorynut and Designation of Critical Habitat. Department of Interior, Fish and Wildlife Service. 88 FR 14794.

Haag, W.R., Cicerello, R.R. 2016. A Distributional Atlas of the Freshwater Mussels of Kentucky. Kentucky State Nature Preserves Commission.

United States Fish and Wildlife Service (USFWS). 2008. Fanshell (*Cyprogenia stegaria*). 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Southeast Region, Kentucky Ecological Services Field Office, Frankfort, Kentucky.

USFWS. 2018. Orangefoot Pimpleback (*Plethobasus cooperianus*) 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service – Southeast Region. Kentucky Field Office.

USFWS. 2022. Species Status Assessment Report for Sheepnose (*Plethobasus cyphyus*). U.S. Fish and Wildlife Service, Region 3, Minneapolis, Minnesota.

USFWS. 2024a. National Wetlands Inventory. Surface Waters and Wetlands Mapper. Available at https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed 5 December 2024.

USFWS. 2024b. Pink Mucket (*Lampsilis abrupta*) Status Review: Summary and Evaluation. U.S. Fish and Wildlife Service, Missouri Ecological Services Field Office, Columbia, Missouri.

USFWS. 2024c. Rabbitsfoot Species Overview. Available at https://www.fws.gov/species/rabbitsfoot-quadrula-cylindrica-cylindrica. Accessed 27 November 2024

USFWS. 2024d. Range-Wide Indiana Bat & Northern Long-Eared Bat Survey Guidelines. U.S. Fish and Wildlife Service.

ATTACHMENT A

Department of the Army Permit

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
REGULATORY DIVISION, SOUTH BRANCH
6855 STATE ROAD 66
NEWBURGH, INDIANA 47630

November 30, 2021

Regulatory Division
South Branch
ID No. LRL-2021-334-tmb

Mr. Michael J. Lesinski
Dept of Homeland Security, USCG
15608 S.W. 117th Avenue
Miami, FL 33177

Dear Mr. Lesinski:

This is in response to your request for a Department of the Army (DA) authorization to conduct maintenance dredging and to remove and replace a floating concrete dock at the U.S. Coast Guard Station. The site is located on the Ohio River at river mile 754.2 on the left descending bank (LDB) in Owensboro, Daviess County, Kentucky. The information supplied by you was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act

Based on the submitted documentation dated October 27, 2021, you propose to dredge an area of 100' x 200' and remove approximately 4,695 cubic yards of silt and clay to maintain the designed navigable elevation of 348 feet Ohio River Datum (ORD) with two feet of allowable overdepth to 346.0 ORD. The material will be mechanically dredged and disposed of at the West Daviess County Landfill. In addition, the existing concrete floating dock would be removed and replaced.

The portion of the project to dredge the existing marina is authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 35, Maintenance Dredging of Existing Basins, as published in the Federal Register January 6, 2017. Under the provisions of this authorization, you must comply with the enclosed Terms and General Conditions for Nationwide Permit No. 35.

The portion of the project to remove and replace the concrete floating dock is authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 28, Modifications of Existing Marinas, as published in the Federal Register January 6, 2017. Under the provisions of this authorization, you must comply with the Terms and General Conditions for Nationwide Permit No. 28.

The following special conditions have been added to your authorization:

1. The size, configuration, and design of the structure shall conform to the plans submitted with your application dated October 27, 2021.

2. All dredged material will be properly contained to prevent sediment from reentering "Waters of U.S.".

3. It is the permittee's responsibility to ensure the contractors working on the project are aware of all general and special permit conditions.

This verification is valid until the NWP is modified, reissued, or revoked. Some of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2022. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. The enclosed Compliance Certification must be submitted to the District Engineer within 30 days of completion of the authorized activity. Note that we also perform periodic inspections to ensure compliance with our permit conditions and applicable Federal laws.

If you have any questions, please contact this office by writing to the above address, ATTN: CELRL-RD-S, or by calling me at 812-853-9713. All correspondence pertaining to this matter should refer to our ID No. LRL-2021-334-tmb.

Sincerely,

Tré M. Barron
Environmental Protection Specialist
Newburgh Regulatory Office

Enclosures
Barron/NWP28/35

Compliance Certification:

Permit Number: LRL-2021-334-tmb

Name of Permittee: Mr. Michael J. Lesinski

Date of Issuance: November 30, 2021

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
CELRL-RD-S, TMB
6855 State Road 66
Newburgh, IN 47630

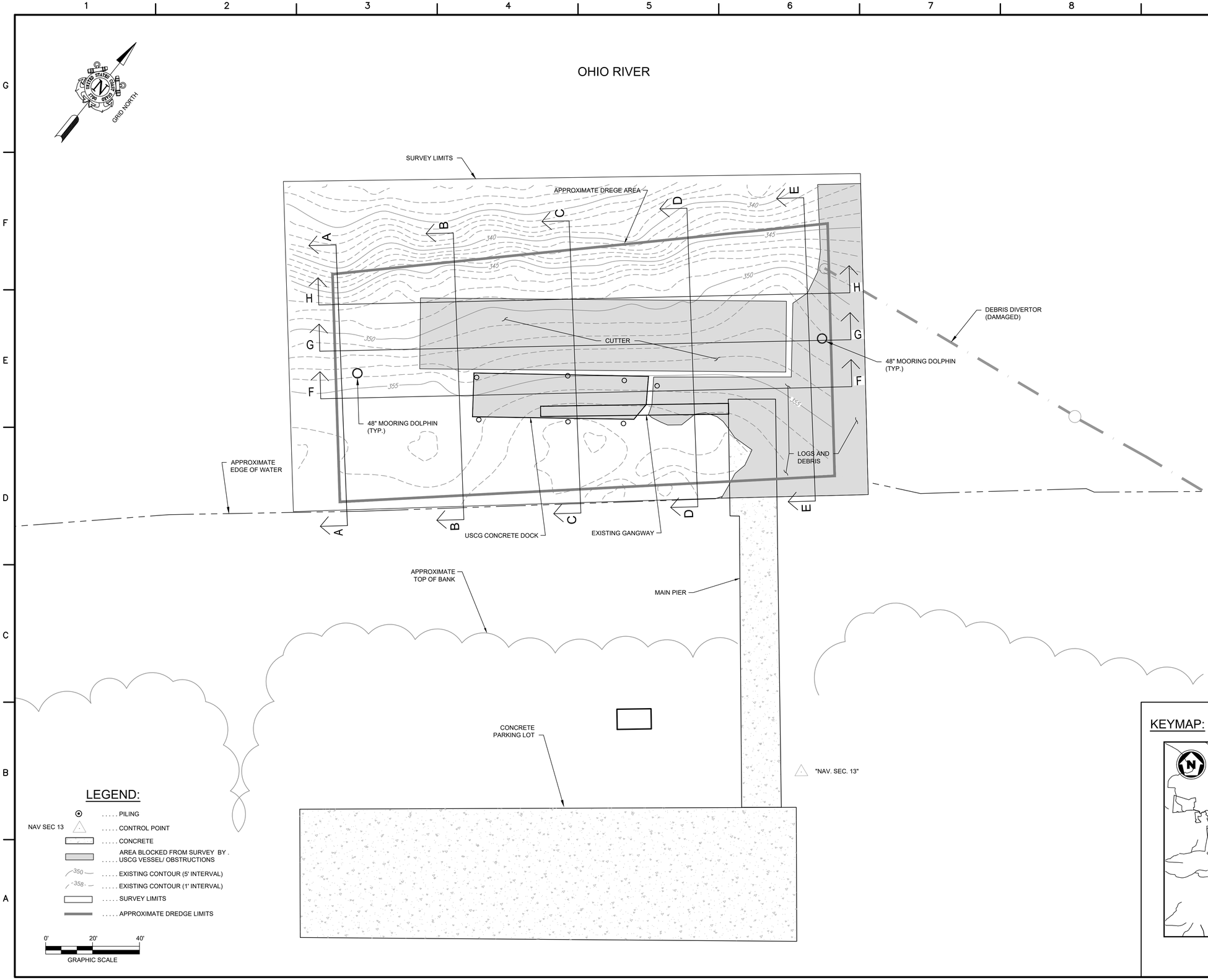
Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

Appendix A
Hydrographic Survey – March 2021



LEGEND:

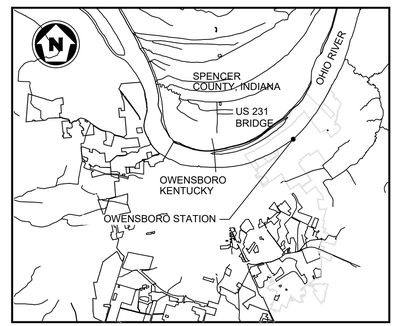
- NAV SEC 13 ..... PILING
- ..... CONTROL POINT
- ..... CONCRETE
- ..... AREA BLOCKED FROM SURVEY BY USCG VESSEL/ OBSTRUCTIONS
- 350 ..... EXISTING CONTOUR (5' INTERVAL)
- 358 ..... EXISTING CONTOUR (1' INTERVAL)
- ..... SURVEY LIMITS
- ..... APPROXIMATE DREDGE LIMITS

0' 20' 40'
GRAPHIC SCALE

NOTES:

1. THE INFORMATION DEPICTED ON THIS SURVEY MAP REPRESENTS THE RESULTS OF A HYDROGRAPHIC SURVEY PERFORMED BY AECOM TECHNICAL SERVICES, INC., PERFORMED ON MARCH 18TH, 2021. THE CONDITIONS SHOWN ON THIS SURVEY ARE SUBJECT TO RAPID CHANGE DUE TO CHANGING EVENTS, AND CAN ONLY BE CONSIDERED A REPRESENTATION OF SITE CONDITIONS AT THAT TIME.
2. SITE SURVEYED WITH SONARMITE SINGLE-BEAM ECHOSUNDER SYSTEM BY OHMEX LTD AND USING RTK GNSS HORIZONTAL POSITIONING EQUIPMENT.
3. COORDINATES REFERENCE STATE PLANE KENTUCKY SOUTH, NAD83 (US FEET).
4. ELEVATIONS ARE IN FEET AND REFER TO THE OHIO RIVER DATUM 1913 (ORD).
5. ALL AREAS IDENTIFIED AS OBSTRUCTED, ELEVATIONS WERE ESTIMATED USING INTERPOLATED DATA FROM SURROUNDING DATA AND VALIDATED USING 10 NOVEMBER 2020 HYDROGRAPHIC SURVEY INFORMATION SHOWN ON "OHIO RIVER MILE 754.4 USCG O'BION DOCK BEFORE DREDGE SURVEY 10 NOV. 2020" PREPARED BY US ARMY CORPS OF ENGINEERS.
6. OHIO RIVER DATUM = NAVD88 + 0.91-FT.
7. NORMAL POOL ELEVATION = 358 ORD.
8. PROJECT BENCHMARK: NAV SEC 13, A US ARMY CORP OF ENGINEERS (ACOE) BRASS CONTROL DISK LOCATED N-SITE, NORTHING 217,365.23(SFT), EASTING 1,257,981.14 (SFT), ORTHO HEIGHT 397.63 (ORD) (FEET).

KEYMAP:



STATUTE MILES
0 2 4

STATE of KENTUCKY
DAVID P. POVICH
4150
LICENSED PROFESSIONAL LAND SURVEYOR

U.S.C.G. CE
U. S. COAST GUARD
CIVIL ENGINEERING

MARK	DESCRIPTION	DATE
1	1ST SUBMITTAL	APRIL 2021

PLOTTING SCALE:1:1
SCALE:AS SHOWN

A/E COMPANY:
AECOM
ARLINGTON, VA
(703) 247-2957
A/E PROJECT NO.:
60653495
CONSULTING A/E:
N/A

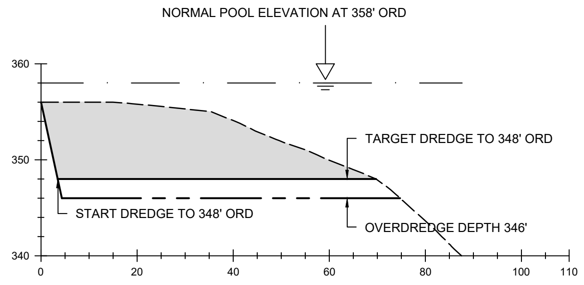
CIVIL ENGINEERING UNIT MIAMI
15608 SW 117 AVE
MIAMI, FL 33177
PROJECT ENGINEER:
EVA I. PORRAS
DESIGNED BY:
MK
DRAWN BY:
MK
EDITED BY:
MS
CHECKED BY:
DP

USCG PROJECT NO.
14767343
USCG DRAWING NO.
14767343-D
USCG FILENAME
C14767343V001.DWG
SHEET 01 OF 03

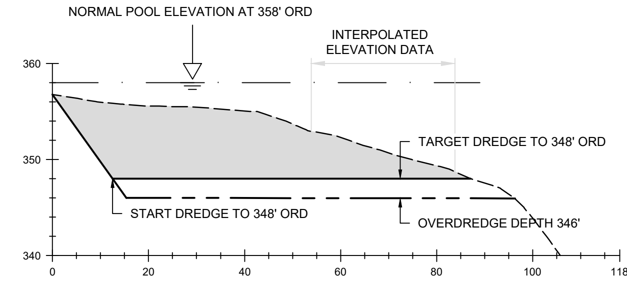
ENV. ANALYSIS WITH HYDROLOGIC SIM. MODEL
CG STATION OWENSBORO
OWENSBORO KY
SURVEY
HYDROGRAPHIC SURVEY

SHEET ID
STATION
OWENSBORO
V-001

SOLICITATION NO.: N/A



SECTION A V-001



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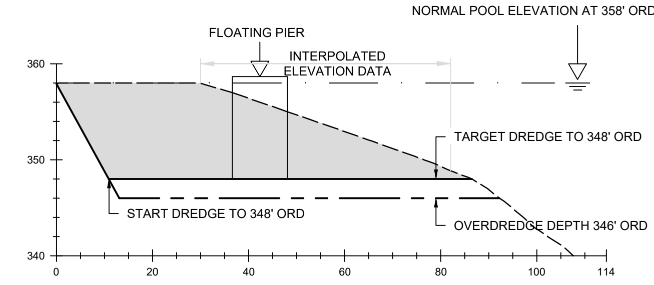
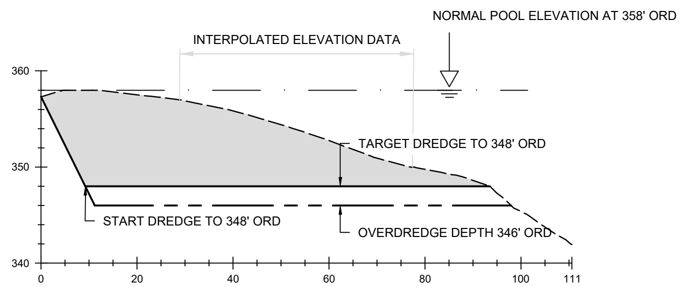


SECTION C V-001

LEGEND:

- EXISTING TOP OF THE SEDIMENT
- PROPOSED BASE DREDGE ELEVATION
- MAXIMUM DREDGE

VERT.: 0 10 20
HORIZ.: 0 20 40
SCALE IN FEET



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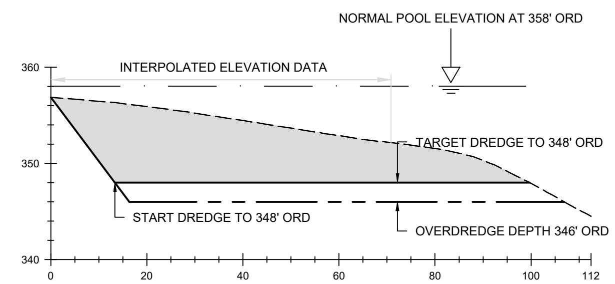

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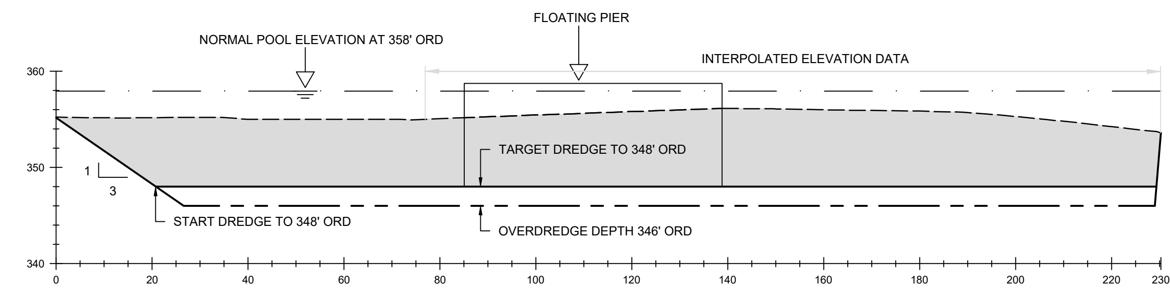

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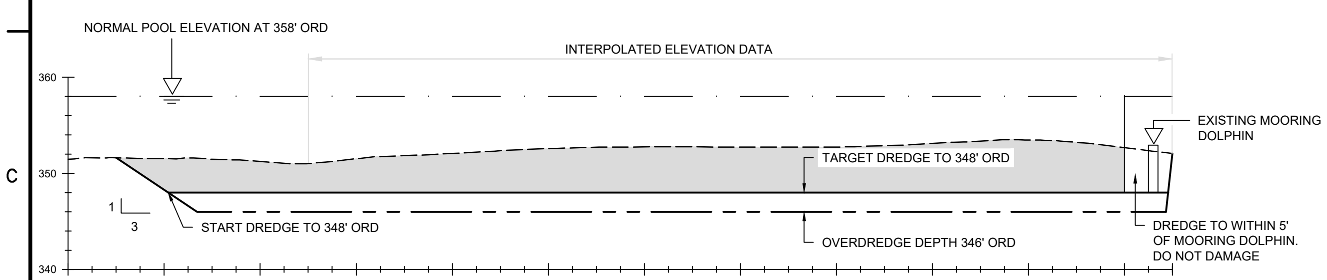
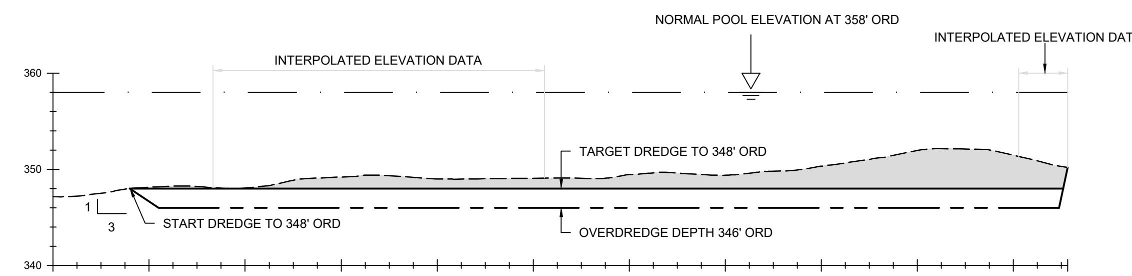


SECTION G V-001



SECTION H V-001

VOLUME COMPUTATION:

EXISTING CONDITIONS TO 348' ORD 3,435 CY
348' ORD TO 346' ORD (OVER-DREDGE) 1,260 CY

NOTE

1. VOLUMES CALCULATED USING CIVIL 3D TIN VOLUME SURFACE ANALYSIS.
2. REFER TO SHEET V-02 FOR HYDROGRAPHIC SURVEY CONTOURS WITH INTERPOLATED ELEVATIONS IN THE AREA WHERE DATA COLLECTION WAS OBSTRUCTED.

STATE of KENTUCKY
DAVID P. POVICH
4150
LICENSED PROFESSIONAL LAND SURVEYOR

U.S.C.G.
U. S. COAST GUARD CIVIL ENGINEERING

MARK	DESCRIPTION	DATE
1	1st SUBMITTAL	APR 2021

SCALE: AS SHOWN
PLOTTING SCALE: 1:1

A/E COMPANY: AECOM ARLINGTON, VA (703) 247-2957
A/E PROJECT NO.: 60653495
CONSULTING A/E: N/A

CIVIL ENGINEERING UNIT MIAMI 15608 SW 117 AVE MIAMI, FL 33177
PROJECT ENGINEER: EVA I. PORRAS
DRAWN BY: ZH
CHECKED BY: JS
DESIGNED BY: ZH
EDITED BY: HH

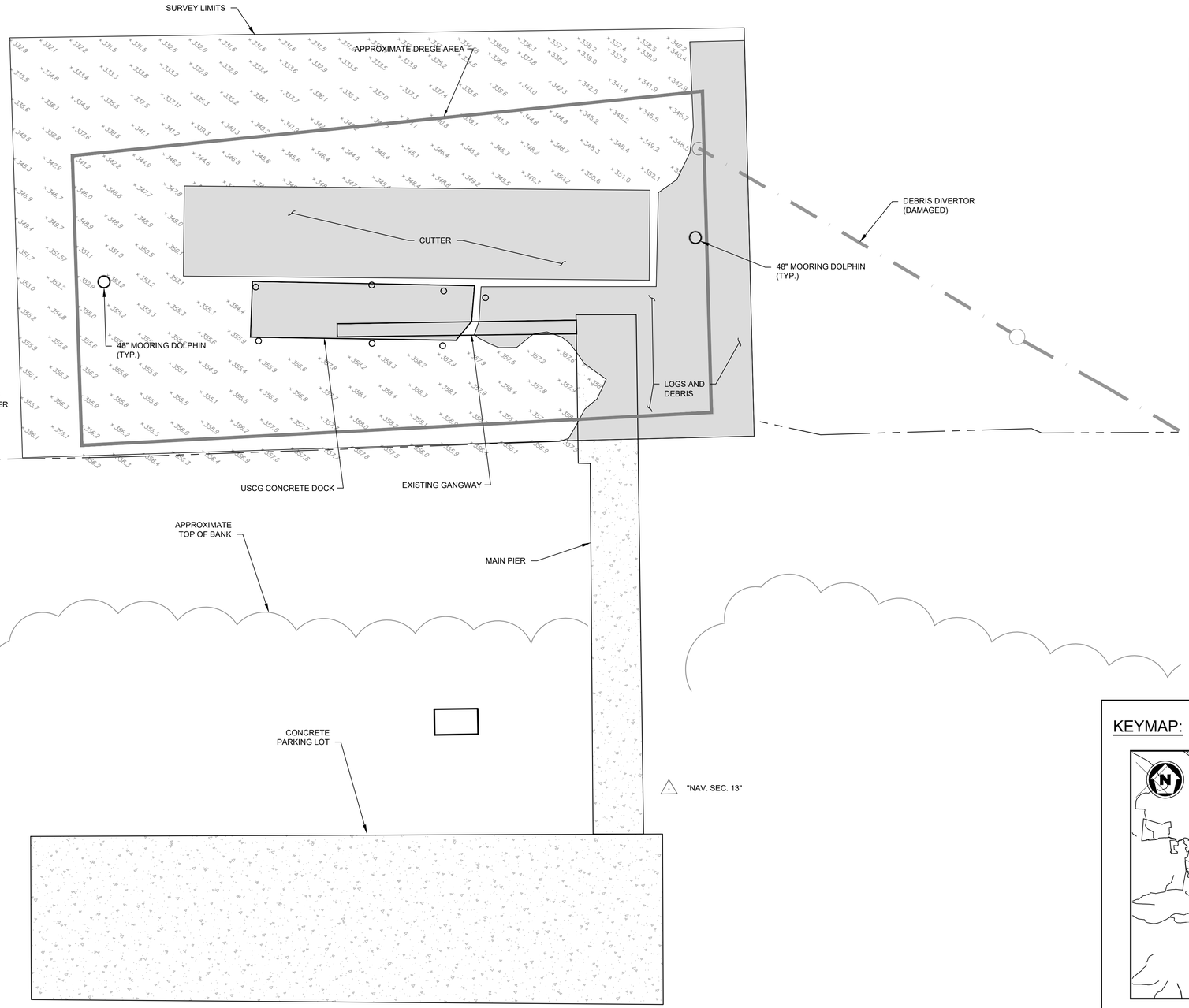
USCG PROJECT NO. 14767343
USCG DRAWING NO. 14767343-D
USCG FILENAME C14767343C001.DWG
SHEET 03 OF 03

ENV. ANALYSIS WITH HYDROLOGIC SIM. MODEL
CG STATION OWENSBORO
OWENSBORO KY
CIVIL
CROSS SECTIONS

SHEET ID
BOAT BASIN
C-001

SOLICITATION NO.: N/A

OHIO RIVER



LEGEND:

- ..... PILING
- NAV SEC 13 ..... CONTROL POINT
- ..... CONCRETE
- ..... AREA BLOCKED FROM SURVEY BY USCG VESSEL/ OBSTRUCTIONS
- ..... EXISTING SPOT ELEVATION
- ..... SURVEY LIMITS
- ..... APPROXIMATE DREDGE LIMITS

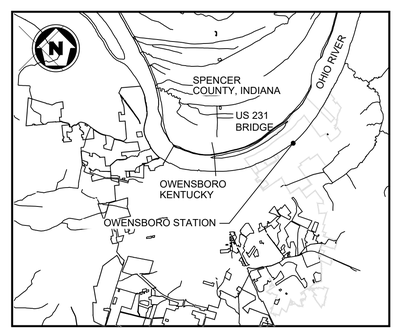
0' 20' 40'

GRAPHIC SCALE

NOTES:

1. THE INFORMATION DEPICTED ON THIS SURVEY MAP REPRESENTS THE RESULTS OF A HYDROGRAPHIC SURVEY PERFORMED BY AECOM TECHNICAL SERVICES, INC., PERFORMED ON MARCH 18TH, 2021. THE CONDITIONS SHOWN ON THIS SURVEY ARE SUBJECT TO RAPID CHANGE DUE TO CHANGING EVENTS, AND CAN ONLY BE CONSIDERED A REPRESENTATION OF SITE CONDITIONS AT THAT TIME.
2. SITE SURVEYED WITH SONARMITE SINGLE-BEAM ECHOSUNDER SYSTEM BY OHMEX LTD AND USING RTK GNSS HORIZONTAL POSITIONING EQUIPMENT.
3. COORDINATES REFERENCE STATE PLANE KENTUCKY SOUTH, NAD83 (US FEET).
4. ELEVATIONS ARE IN FEET AND REFER TO THE OHIO RIVER DATUM 1913 (ORD).
5. ALL AREAS IDENTIFIED AS OBSTRUCTED, ELEVATIONS WERE ESTIMATED USING INTERPOLATED DATA FROM SURROUNDING DATA AND VALIDATED USING 10 NOVEMBER 2020 HYDROGRAPHIC SURVEY INFORMATION SHOWN ON "OHIO RIVER MILE 754.4 USCG O'BION DOCK BEFORE DREDGE SURVEY 10 NOV. 2020" PREPARED BY US ARMY CORPS OF ENGINEERS.
6. OHIO RIVER DATUM = NAVD88 + 0.91-FT.
7. NORMAL POOL ELEVATION = 358 ORD.
8. PROJECT BENCHMARK: NAV SEC 13, A US ARMY CORP OF ENGINEERS (ACOE) BRASS CONTROL DISK LOCATED N-SITE, NORTHING 217,365.23(SFT), EASTING 1,257,981.14 (SFT), ORTHO HEIGHT 397.63 (ORD) (FEET).

KEYMAP:



STATUTE MILES
0 2 4

STATE of KENTUCKY
DAVID P. POVICH
4150
LICENSED PROFESSIONAL LAND SURVEYOR

U.S.C.G. CE
U. S. COAST GUARD CIVIL ENGINEERING

MARK	DESCRIPTION	DATE
1	1ST SUBMITTAL	APRIL 2021

PLOTTING SCALE: 1:1
SCALE: AS SHOWN

A/E COMPANY: AECOM ARLINGTON, VA (703) 247-2957
A/E PROJECT NO.: 60653495
CONSULTING A/E: N/A

CIVIL ENGINEERING UNIT MIAMI
15608 SW 117 AVE
MIAMI, FL 33177

PROJECT ENGINEER: EVA I. PORRAS
DRAWN BY: MS
CHECKED BY: DP
DESIGNED BY: MS
EDITED BY: MS

USCG PROJECT NO. 14767343
USCG DRAWING NO. 14767343-D
USCG FILENAME C14767343V002.DWG
SHEET 02 OF 03

ENV. ANALYSIS WITH HYDROLOGIC SIM. MODEL
CG STATION OWENSBORO KY
OWENSBORO

SURVEY
HYDROGRAPHIC SURVEY

SHEET ID
STATION OWENSBORO
V-002

SOLICITATION NO.: N/A

ATTACHMENT B

Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
Phone: (502) 695-0467 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov

In Reply Refer To: 12/17/2024 16:53:31 UTC
Project Code: 2025-0033096
Project Name: USCG Homeport Waterfront Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do..

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of

this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Kentucky Ecological Services Field Office
J C Watts Federal Building, Room 265
330 West Broadway
Frankfort, KY 40601-8670
(502) 695-0467

PROJECT SUMMARY

Project Code: 2025-0033096
Project Name: USCG Homeport Waterfront Improvements
Project Type: Boatlift/Boathouse/Dock/Pier/Piles - Maintenance/Modificaton
Project Description: The USCG Station Owensboro (Site) is located on the southern (left) shoreline of the Ohio River at 3301 KY-144, Owensboro, Kentucky in Daviess County, approximately 2.5 miles northeast of the city center, and approximately 0.6-mile outside the city limits boundary. The Project Area is approximately 1.5-acres in size.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.787277849999995,-87.0739710010505,14z

Counties: Daviess County, Kentucky

ENDANGERED SPECIES ACT SPECIES

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ The project area includes potential gray bat habitat. Species profile: https://ecos.fws.gov/ecp/species/6329 General project design guidelines: https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/6422.pdf	Endangered
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: ▪ The project area includes 'potential' habitat. All activities in this location should consider possible effects to this species. Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/6422.pdf	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

CLAMS

NAME	STATUS
Fanshell *Cyprogenia stegaria* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4822 General project design guidelines: https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/5639.pdf	Endangered
Longsolid *Fusconaia subrotunda* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9880	Threatened
Orangefoot Pimpleback (pearlymussel) *Plethobasus cooperianus*	Endangered

NAME STATUS

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/1132
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/5639.pdf

Pink Mucket (pearlymussel) *Lampsilis abrupta* Endangered
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7829
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/5639.pdf

Rabbitsfoot *Quadrula cylindrica cylindrica* Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/5165
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/5639.pdf

Sheepnose Mussel *Plethobasus cyphyus* Endangered
There is **proposed** critical habitat for this species.
Species profile: https://ecos.fws.gov/ecp/species/6903
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/23B3VX7HRBCBDAGSNFEOGIVR2I/documents/generated/5639.pdf

INSECTS

NAME STATUS

Monarch Butterfly *Danaus plexippus* Proposed Threatened
There is **proposed** critical habitat for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Bailey Campbell
Address: 101 N Rodney St. Suite C
City: Helena
State: MT
Zip: 59601
Email bcampbell@gsi-net.com
Phone: 4064615927

LEAD AGENCY CONTACT INFORMATION

Lead Agency: U.S. Coast Guard

ATTACHMENT C

Site Photographs

Photo 1
General overview of Site including Project Area.

Photo 2
General overview of Project Area as viewed from the Ohio River. The existing gangway and floating dock to be replaced are visible in the photo.

GSI .ENVIRONMENTAL	**PHOTOLOG** **U.S. Coast Guard** ESA Section 7 Consultation	**GSI Project**: 10271 **Issued**: January 2025

Photo 3
Existing homeport and Obion Cutter as viewed from the Ohio River (looking east).

Photo 4
Debris buildup upriver of pier where new debris deflector is proposed. Can see remnants of failed deflector.

Photo 5
Pier. Buoy laydown area in distance.

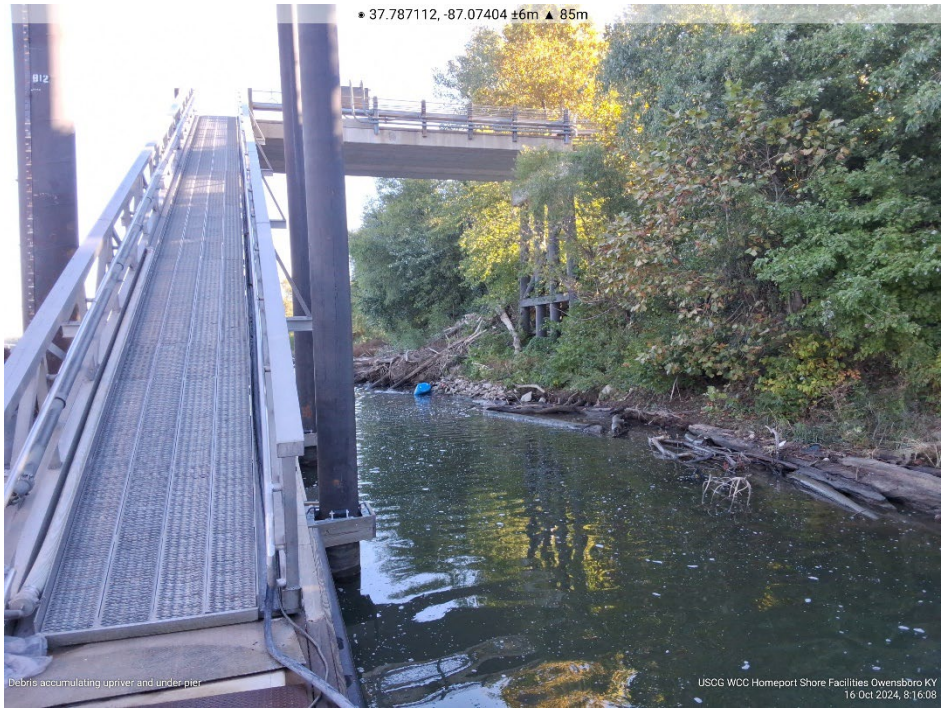


Photo 6
Debris accumulating upriver and under pier. View of gangway connecting pier and floating dock.

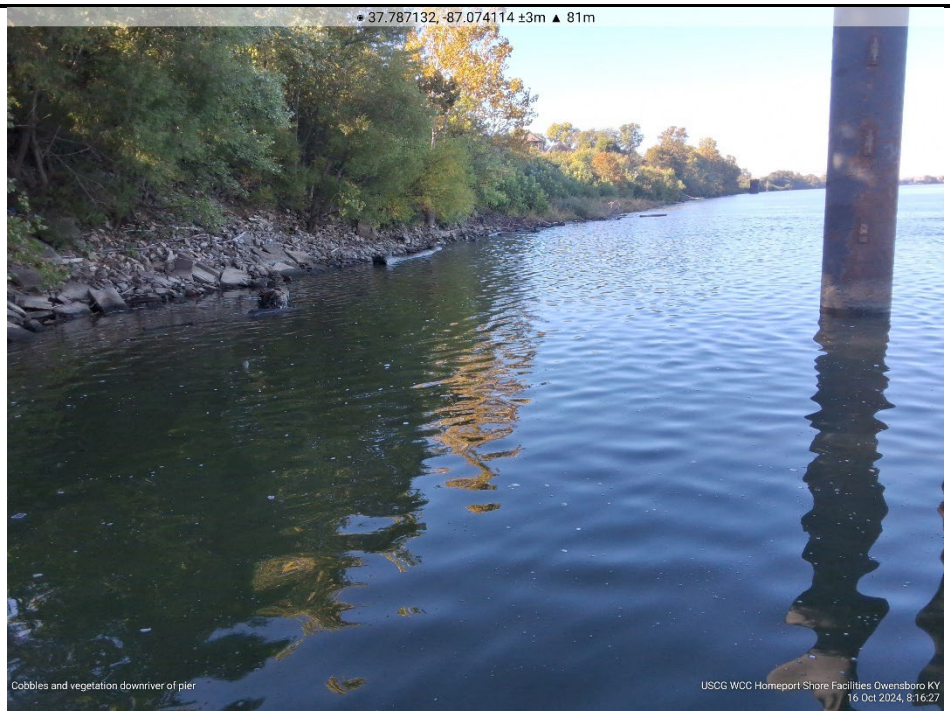


Photo 7
Cobbles and vegetation downriver of pier.

Photo 8
Vegetation under pier.

Photo 9
Debris accumulation upriver and under pier.

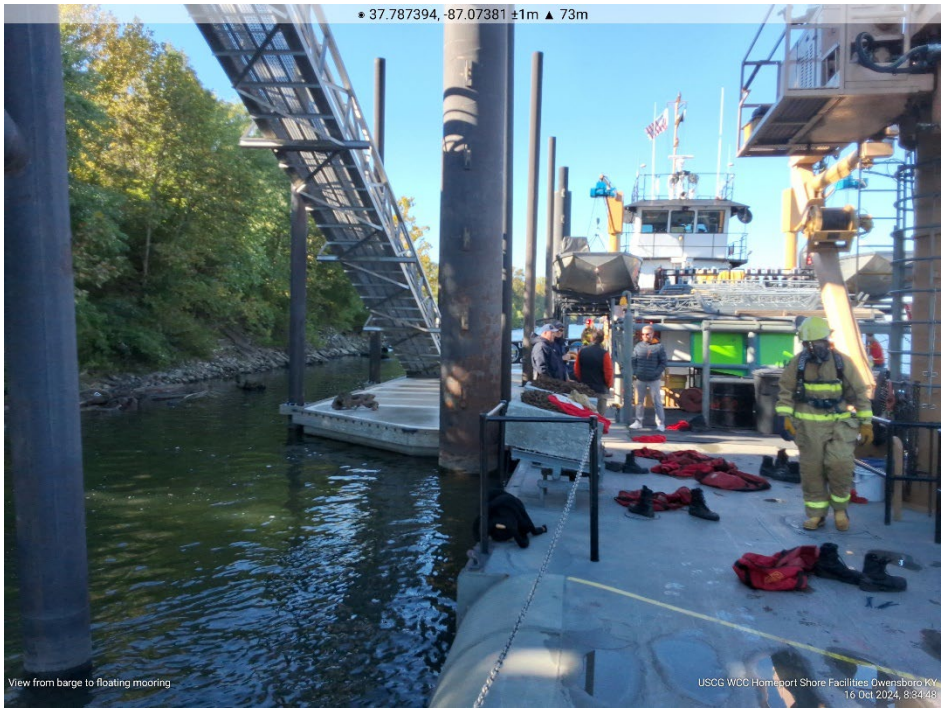


Photo 10
View from barge (attached to Obion cutter) at floating dock.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

February 26, 2025

Justin Davis
U.S. Coast Guard
2703 Martin Luther King Jr. Ave
Washington, DC 20593

Subject: FWS 2025-0033096; U.S. Coast Guard Station Owensboro Homeport Waterfront Improvement; Daviess County, Kentucky

Dear Justin Davis:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) has reviewed the request for comment for the above-referenced project received by our office on January 13, 2024, with additional information provided on February 24, 2025. The U.S. Coast Guard (USCG) is proposing to make improvements to a coast guard station in Daviess County, Kentucky. The KFO offers the following comments in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Project Description
The USCG Station Owensboro has operated continuously since 1994, which includes an existing pier, floating mooring, and shoreline utilities. The proposed project includes four main action components: 1) replace the deck of the existing pier with a deck rated for a higher load capacity (600 pounds per square foot (psf) versus the existing 150 psf); 2) replace the existing floating mooring with a longer floating mooring to accommodate a new Waterways Commerce Cutter vessel (200 feet total); 3) replace the existing debris deflector with a more substantial debris deflector; and 4) upgrade shore-side cutter utilities (sewer and electrical). The new debris deflector would involve the construction of stone filled sheet pile cofferdams upstream of the existing mooring. Surrounding land use is comprised of industrial and residential properties. No tree clearing is proposed.

Federally Listed Species
The USCG has determined that the proposed project will have "no effect" on the gray bat (*Myotis grisescens*) and the Indiana bat (*Myotis sodalis*) based on lack of suitable habitat at the proposed action area. There is no requirement to request concurrence with "no effect" determinations; however, the KFO acknowledges these determinations and has no additional comments or concerns regarding these species. The USCG has determined that the proposed project has the potential to affect the fanshell (*Cyprogenia stegaria*), longsolid (*Fusconaia*

subrotunda), pink mucket (*Lampsilis abrupta*), orangefoot pimpleback (*Plethobasus cooperianus*), rabbitsfoot (*Quadrula cylindrica cylindrica*), and sheepnose mussel (*Plethobasus cyphyus*). GSI Environmental Inc. conducted a site reconnaissance survey on October 16, 2024, to identify potential wildlife habitat and characterize existing conditions at the proposed action area.

Federally Listed Mussels

The proposed action area surrounding the facility has been dredged recently (within the past five years) and has undergone continuous dredging since operations began in 1994. Additionally, the facility has consistently been used for the anchoring and docking of large vessels. Given this ongoing disturbance, it is unlikely that suitable mussel habitat for these species exists in the area.

The construction of the new debris reflector will necessitate the use of cofferdams in a section that has not experienced continuous disturbance. However, this site is currently filled with large woody debris, and previous geotechnical borings indicate the presence of several feet of silt and sand, which are not suitable habitats for these species.

Based on the lack of suitable habitat in the action area, the KFO considers impacts to mussels to be discountable. As a result, the KFO concurs that the proposed project "may affect but is not likely to adversely affect" federally listed mussel species.

Summary

The USCG has determined that the proposed project will have "no effect" on the gray bat and the Indiana bat. The KFO agrees that the proposed project "may affect but is not likely to adversely affect" the fanshell, longsolid, pink mucket, orangefoot pimpleback, rabbitsfoot, and sheepnose mussel. In view of these findings, we believe that the Section 7 requirements of the Endangered Species Act for this project are fulfilled. The USCG should reconsider their Section 7 obligation if: (1) new information reveals that the proposed action may affect listed species in a manner or to an extent not previously considered; (2) the proposed action is subsequently modified to include activities which were not considered during this consultation; or (3) new species are listed, or critical habitat designated.

We appreciate the opportunity to review the proposed project. If you have any questions, please contact Taylor Fagin of my staff at taylor_fagin@fws.gov.

Sincerely,

JOSHUA LILLPOP

Digitally signed by JOSHUA LILLPOP
Date: 2025.02.26 11:12:57 -05'00'

for Virgil Lee Andrews, Jr.
Field Supervisor

APPENDIX B

Section 106 Consultation

KENTUCKY HERITAGE COUNCIL COVER SHEET FOR SECTION 106 REVIEW AND COMPLIANCE

When federal (and some state) funds, permits or approvals are needed for a project, regulations such as 36 CFR Part 800 require these agencies or their delegates to consult with the Kentucky Heritage Council/State Historic Preservation Office regarding the project's potential effects on historic properties. To facilitate our review, please provide the following information and applicable attachments. Our office will generate a response within 30 days of receipt. Incomplete submissions may be returned for more information.

SECTION 1: APPLICANT INFORMATION

Project Sponsor or Applicant: GSI Environmental Inc.

Contact Person (name & position)**:** Meghan T. Wirth, Senior Biologist

Return Address: 101 N Rodney St. Suite G Helena, MT 59601

Telephone: 406-459-9908 **E-mail:** MTWirth@gsi-net.com

Project Title: U.S. Coast Guard Owensboro, KY Homeport Improvements

SECTION 2: AGENCY INFORMATION

Funding/Permitting Agency: U.S. Coast Guard, Civil Engineering Unit Cleveland

Agency Contact Person (name & position)**:** Colin Fishbaugh, Planner / Architect

Telephone: 206-836-1986 **E-mail:** colin.a.fishbaugh@uscg.mil

SECTION 3: PROJECT LOCATION

E911 Street Address (or other description)**:** 3301 E 4th St. (3301 Highway 144)

City/Township: Owensboro **County:** Daviess

Latitude: 37.7863490 **Longitude:** 87.0732440

SECTION 4: PROJECT TYPE (please check all that apply)

Proposed Activity: ☑ Demolition ☑ Rehabilitation ☐ Structural Relocation ☐ Trails

☑ New Construction ☐ Land and/or Building Acquisition ☑ Sewer/Water Lines ☐ Roads/Bridges

☐ Non-Construction Planning/Refinancing ☑ Other (describe): Replacement of existing pier

SECTION 5: IDENTIFICATION OF KNOWN HISTORIC PROPERTIES

OSA Preliminary Site Check #: P171562

If your project involves ground disturbance, has the site been previously disturbed?

☑ Yes (describe in detail below) ☐ No

Yes. The proposed Project Area contains an existing pier, moorings, and dock. The Project Area undergoes routine maintenance dredging. The proposed action would involve replacement of existing pier and construction of new pier, moorings, and debris deflector. Any new ground disturbance would occur entirely within the Ohio River.

Is there anything over 50 years of age in or visible from the project location? ☐ Yes ☑ No

SECTION 6: ATTACHMENTS - Attach all as applicable

All documentation should be labeled with the project name or site address.

☑ Clear, current photographs of the project site and anything over 50 years of age in or visible from it.
☑ Site map/plan indicating the exact location and boundaries of the project area.
☑ Detailed description of the project (may include plans, scope of work, and other available information.)
☑ Documentation of prior ground disturbance (e.g. maps, photographs, underground utility plans, etc.)
☑ Any known information about the history/use of the property and local significance.

NOTE: Submit all information to Craig Potts, Executive Director/SHPO Via E-mail to: khc.section106@ky.gov PAPER SUBMISSIONS WILL NOT BE ACCEPTED

We are no longer accepting paper documents for above or below ground review. Please submit all electronic documents for Section 106 Review to khc.section106@ky.gov. DO NOT SUBMIT ANY INITIAL SECTION 106 REVIEW MATERIALS TO AN INDEPENDENT REVIEWER. Failure to submit documents to the dedicated Section 106 email address will result in our staff not receiving these documents for review.

U.S. Department of Homeland Security
United States Coast Guard

Planning & Real Property Branch Chief
United States Coast Guard
Civil Engineering Unit Cleveland

1240 East Ninth Street,
Room 2179
Cleveland, OH 44199-2060
Phone: 216-902-6200

5090/24-151
7 January 2025

Nicole Konkol
Kentucky Heritage Council
SHPO Section 106 Review and Compliance
Khc.section106@ky.gov

Dear Nicole Konkol,

The purpose of this letter is to solicit comments regarding the United States Coast Guard's (USCG) intent to conduct waterfront improvements at the USCG Station Owensboro (Site) in Owensboro, Daviess County, Kentucky (Proposed Action). The USCG is preparing an Environmental Assessment (EA) to evaluate the potential impacts associated with the Proposed Action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code §4321 et seq.), the Council on Environmental Quality Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and USCG Commandant Instruction (COMDTINST) M16475.1D, Implementing Procedures and Policy for Considering Environmental Impacts. By this letter, the USCG is initiating consultation with your office pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f), and its implementing regulation, 36 CFR 800, "Protection of Historic Properties" (Section 106).

SITE LOCATION

The USCG Station Owensboro (Site) is located on the southern shoreline of the Ohio River at 3301 KY-144, Owensboro, Kentucky; approximately 2.5 miles northeast of the Owensboro city center and approximately 0.6-miles from the city limit boundary (**Figure 1**). The proposed Project Area includes an existing pier, floating mooring, and shoreside utilities and can be accessed using the USCG driveway via East 4th Street (Kentucky Highway 144) (**Figure 2**).

PROJECT BACKGROUND

The Site currently serves as the dock for the USCG Cutter Obion, hull No. WLR-65503. The main mission of the Obion and its crew is to maintain federal aids to navigation (buoys and lights) of approximately 600 river miles of the Ohio and Green Rivers. The USCG's current tender fleet consists of 35 tenders, including the Obion, that support the Service's aids to navigation (ATON) mission in federal inland waters. These tenders play a vital role in directing traffic of the Nation's Marine Transportation System (MTS) and support the U.S. economy by facilitating the efficient flow of goods nationwide. The inland tenders can also perform missions including search and

rescue; ports, waterways and coastal security; and marine environmental protection, enabling them to efficiently and effectively respond to emergencies such as environmental incidents and severe storm events. However, the average age of USCG's current fleet of inland tenders is more than 57 years and is in a state of obsolescence, resulting in rising maintenance costs.

In addition to age concerns and associated equipment obsolescence issues, the existing fleet presents other sustainment challenges, including hazardous materials stemming from the use of asbestos and lead paint during construction of these assets. Outdated technology and vessel designs have also led to crew safety concerns and noncompliance with environmental regulations. Lastly, vessel configuration does not allow the assignment of mixed gender crews in accordance with the USCG's workforce goals. The USCG WWC Program is replacing the existing inland tenders with 16 River Buoy Tenders (i.e., WLRs), 11 Inland Construction Tenders (WLICs), and three Inland Buoy Tenders (WLIs). The new WCCs will feature improved habitability and will better accommodate mixed-gender crews. The Project would provide a dedicated homeport berth on the Ohio River designed to accommodate an incoming Waterways Commerce Cutter (WCC) River Buoy Tender (WLR) variant in Owensboro, Kentucky.

The Obion is slated for replacement by a new WCC WLR in FY2032. The existing CGC moorings and facilities have numerous challenges to overcome for legacy WLR operations. In addition to facility and utility challenges, the Owensboro mooring dock accumulates substantial debris from upriver. A debris deflector was designed and installed but failed after a few years of operation.

The site is subject to water level fluctuations of 20-feet or more. The water level at the pier averages 12 feet deep. The new WCC will require 8 to 10 feet of water. The water level at the furthest downriver piling is currently 7 feet deep which is too shallow to navigate the Obion or future WCC. As is, the USGS must approach the existing pier in such a way as to avoid the shallow portion of the waterfront. The area under the pier was dredged approximately 1 year ago and will need to be dredged again in spring 2025.

DESCRIPTION OF UNDERTAKING

The Undertaking, as defined by Section 106, includes four main components: 1) replace the deck of the existing pier with a deck rated for a higher load capacity (600 pounds per square foot (psf) versus the existing 150 psf); 2) replace the existing floating mooring with a longer floating mooring to accommodate the new WCC WLR variant; 3) replace the existing debris deflector with a more substantial debris deflector; and 4) upgrade shore-side cutter utilities (sewer and electrical).

A Planning Proposal is underway by the USCG to define the requirements, scope, analysis of alternatives, and cost estimates needed to provide facilities necessary for a Full Operating Capability (FOC) Homeport required for one new WCC WLR at the existing homeport. The facilities and estimated costs will be developed as part of a Feasibility Study managed by the USCG.

The purpose of the Undertaking is to provide the necessary homeport improvements to accommodate the new WCC WLR at the existing homeport, maintain the viability of the Owensboro Station, and meet the USCG mission requirements at the Owensboro Station. The Proposed Action is needed to address insufficient load capacity of the existing pier deck, insufficient water depths at the existing floating mooring, the turning basin in front of the Owensboro Station, and the vessel berth area at the pier and floating mooring. The Proposed Action is also needed to deflect large woody debris from accumulating at the floating mooring, so that USCG mission requirements may be carried out. The waterfront facilities, which connect to the Owensboro Yard's upland storage area and building, is used currently to store the ATON devices. As the only USCG station in the area, the waterfront facilities need to be accessible by the USCG vessel and have the appropriate facilities to meet the USCG mission requirements.

Area of Potential Effects

The Area of Potential Effects (APE), as defined in 36 CFR 800.16(d), is "the geographic area or areas within which an undertaking may directly or indirectly cause alteration in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." The APE for archaeological resources includes the limits of waterfront improvements. Only existing structures will be replaced. There will be no new above-ground structures or buildings built because of this Undertaking. The APE for above-ground resources corresponds to the APE for archaeological resources and is shown in **Figure 2** as the "Project Area".

Supporting Documentation

A site visit was conducted on October 16, 2024. Photographs from the site visit are included as **Attachment A**. Environmental Data Resources, Inc. were contacted to request an Aerial Photo Decade Package and historic imagery of the Site. The EDR response package is included as **Attachment B**. The original site plans (1992) include a topographic/hydrographic survey; geotechnical exploration; site demolition plans; site layout plan; grading and drainage plan; and site utilities. The original site plans are included as **Attachment C**. A Preliminary Records Review was requested from the Kentucky Office of State Archaeology and is included as **Attachment D**. A preliminary site check was conducted using the Kentucky Heritage Council's Historic Resources Survey and is included as **Attachment E**.

Identification of Historic Properties

To identify historic properties in the APE, USCG's consultants conducted a review of available information, including data provided by USCG; National Register of Historic Places (NRHP) listings; the Kentucky Office of State Archaeology; and historic maps and images (e.g., historic aerials and topographic maps). A map showing the location of a Phase II Archeological Investigation at the upland area outside the APE is in **Attachment D**. A preliminary site check was conducted using the Kentucky Heritage Council's Historic Resources Survey and is included as **Attachment E**. The APE does not intersect with known archeological or historic resources.

Assessment of Effects

Based on the proposed scope of work, the USCG has determined that the Undertaking does not have the potential to affect historic properties. The USCG has further determined that the Proposed Action would have ***No Adverse Effect*** on NRHP-listed properties. No significant archaeological resources are known within the APE, and the APE has a low potential to contain significant archaeological resources. As such, the USCG has determined that there will be ***No Effect*** to archaeological historic properties by the Undertaking.

Conclusions

We are seeking input from your Agency regarding any information or potential environmental concerns associated with the Proposed Action, in accordance with Section 106 of the National Historic Preservation Act (36 CFR Part 800). Please provide any comments, concerns, information, studies, or other data you may have regarding the Proposed Action within **thirty (30) days** of receipt of this letter to enable us to complete this phase of the project within the scheduled timeframe. All responses will be considered for incorporation in the EA. We look forward to and welcome your participation in this analysis.

The USCG has contracted GSI Environmental Services, Inc. (GSI) to facilitate the Section 106 process. If you have comments or information relevant to the development of the EA, please direct your correspondence to Ms. Meghan Wirth at GSI, via (406) 459-9908 or mtwirth@gsienv.com.

Sincerely,

Justin S. Davis, Lieutenant
Planning & Real Property Branch Chief
U.S. Coast Guard

Attachments

Attachment A – Site Photographs

Attachment B – EDR Aerial Photo Decade & Historic Imagery

Attachment C – Original Site Plan (1992)

Attachment D – Program Preliminary Records Review (Kentucky Office of State Archaeology)

Attachment E – Historic Resources Survey Preliminary Site Check Map
(Kentucky Heritage Council)

Letter Enclosures

Five attachments (listed) were provided to the Kentucky Heritage Council along with the Section 106 Consultation Letter. These attachments are not provided due to the sensitive nature of information on archaeological resources included in the documents.

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE
410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

LINDY CASEBIER
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

January 29, 2025

Meghan T. Wirth
Senior Biologist
101 N. Rodney St., Suite G
Helena, MT 59601
Via email: MTWirth@gsi-net.com

RE: USCG, Owensboro, KY Homeport Improvements; Daviess County, Kentucky

Dear Ms. Wirth,

Thank you for your submittal of maps and project specifics for the above-referenced undertaking. We understand the U.S. Coast Guard (USCG) is preparing an environmental assessment for their Homeport Improvements project. Proposed project activities include replacement of the existing pier and construction of new pier, moorings, and debris deflector, using an existing access route. All ground disturbance will occur within the Ohio River.

One previously recorded archaeological site is within the area of potential effect. No ground disturbance is anticipated within or adjacent to this site, which has not been assessed for eligibility in the National Register of Historic Places.

Our office would concur with a determination of **No Adverse Effect** to Historic Properties for this undertaking, assuming no ground disturbance is carried out within the previously recorded site. If it is found the site can not be avoided, please contact this office prior to any ground disturbing activities.

In the unlikely event that human remains are found during construction for this project, work should cease immediately, and the county coroner and the Kentucky Heritage Council should be contacted. Should project plans change or should there be any future concerns or questions regarding cultural resources in the vicinity of this project area, please contact Patti Hutchins of my staff at Patricia.Hutchins@ky.gov.

Sincerely,

Craig Potts
Executive Director and
State Historic Preservation Officer

KHC# 240021
CP: peh

KENTUCKY TOURISM, ARTS & HERITAGE CABINET

APPENDIX C

Engineered Drawings of Alternatives

KEYED NOTES

1. PROPOSED STONE FILLED SHEET PILE COFFERDAM,TOP ELEV: 393.
2. PROPOSED FLOATING DOCK AND 12" MOORING PILES
3. PROPOSED ELECTRICAL COMMUNICATION CIRCUITS
4. PROPOSED INTERMEDIATE PILE BENT
5. REMOVE EXISTING 12" MOORING PILE
6. PROPOSED PIER LIGHT, TYPE, OF 3.
7. PROPOSED WATER/SEWAGE/ELECTRICAL/COMM LINES CONSTRUCTED ON GUARD RAIL (NOT SHOWN FOR CLARITY), TYP, OF 4.
8. PROPOSED MOORING PILE WITH FLOATING BITT
9. PROPOSED ALUMINUM RAMP
10. CONNECT TO EXISTING UTILITIES
11. 150 KVA DRY TYPE TRANSFORMER
12. METER INSTALLATION
13. DISTRIBUTION PANEL WITH 400 AMP MAIN BREAKER
14. 400 AMP PIN RECEPTACLE
15. 100 AMP PIN RECEPTACLE
16. STATIONARY STRUCTURAL STEEL DEBRIS BARRIER, TOP ELEV: 393, BOT. ELEV: 353.
17. EXISTING PILE CAP AND PIER TO BE EXTENDED AND NEW PILE ADDED.
18. FIRE SUPPRESSION STAND PIPE.
19. BRACED SHEET PILE DEBRIS BARRIER.

LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- WATER LINE
- SANITARY FORCE MAIN
- OVERHEAD ELECTRICAL LINE
- EXISTING AREA LIGHT
- PROPOSED AREA LIGHT
- PROPOSED FLOATING DOCK
- PROPOSED STONE FILLED COPPERDAM
- EXISTING PILE BENT
- PROPOSED PILE BENT
- PROPOSED PIER RECONSTRUCTION
- PROPOSED ALUMINUM RAMP
- STRUCTURAL DEBRIS BARRIERS
- PIER WIDENING

1 PLATE 1 SITE PLAN
SCALE: 1" = 20'-0"

N

0 10' 20' 40'
SCALE: 1" = 20'

APPROVING OFFICER DATE

TECHNICAL DIRECTOR

BRANCH CHIEF

U.S.C.G.
U.S. COAST GUARD
CIVIL ENGINEERING

MARK	DESCRIPTION	DATE
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A/E COMPANY:
M.E. JOHNSON - MCADAMS FIRM P.A.
662 - 455 - 4943
A/E PROJECT NO.:
A452.4

CONSULTING A/E:
CONSULTING COMPANY NAME
CONSULTANT'S CITY, STATE

CIVIL ENGINEERING UNIT CLEVELAND
1240 EAST 9TH STREET
CLEVELAND OH 44199-2060

PROJECT ENGINEER:
FISHBAUGH, COLIN

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DESIGNED BY:	DRAWN BY:
DESIGNED BY:	CHECKED BY:
EDITED BY:	CHECKED BY:

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WATERWAYS COMMERCE CUTTER
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OWENSBORO
CIVIL
ALTERNATIVE 1

SHEET ID
PLATE 1

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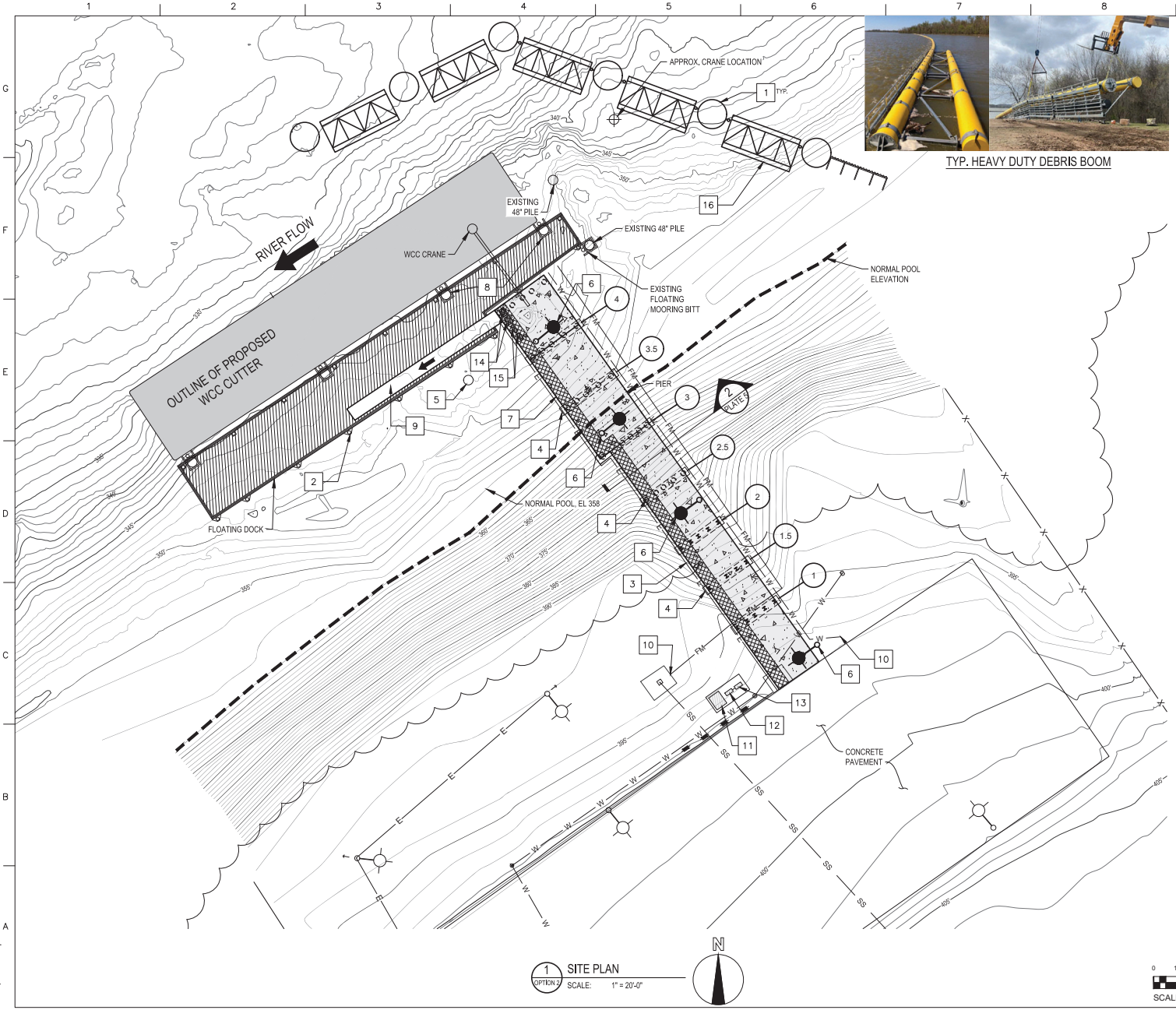
PLATE 1 - ALTERNATIVE NO. 1



KEYED NOTES

1	PROPOSED STONE FILLED SHEET PILE COFFERDAM
2	PROPOSED FLOATING DOCK AND 12" MOORING PILES
3	PROPOSED ELECTRICAL CIRCUITS
4	PROPOSED INTERMEDIATE PILE BENT
5	REMOVE EXISTING 12" MOORING PILE
6	PROPOSED PIER LIGHT
7	PROPOSED WATER/SEWAGE/ELECTRICAL/COMM LINES CONSTRUCTED ON GUARD RAIL (NOT SHOWN FOR CLARITY)
8	PROPOSED MOORING PILE WITH FLOATING BITT
9	PROPOSED ALUMINUM RAMP
10	CONNECT TO EXISTING UTILITIES
11	150 KVA DRY TYPE TRANSFORMER
12	METER INSTALLATION
13	DISTRIBUTION PANEL WITH 400 AMP MAIN BREAKER
14	400 AMP PIN RECEPTACLE
15	100 AMP PIN RECEPTACLE
16	HEAVY DUTY FLOATING DEBRIS BOOM

LEGEND

MAJOR CONTOUR — 365'
MINOR CONTOUR
WATER LINE — W
SANITARY FORCE MAIN — FM
OVERHEAD ELECTRICAL LINE — E
EXISTING AREA LIGHT
PROPOSED AREA LIGHT
PROPOSED FLOATING DOCK
PROPOSED STONE FILLED COPPERDAM
EXISTING PILE BENT
PROPOSED PILE BENT — 1
PROPOSED PIER RECONSTRUCTION
PROPOSED ALUMINUM RAMP
PIER WIDENING

1 OPTION 2 SITE PLAN
SCALE: 1" = 20'-0"

N

0 10' 20' 40'
SCALE: 1" = 20'

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TECHNICAL DIRECTOR

BRANCH CHIEF

U.S.C.G. CIVIL ENGINEERING

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THE JOHNSON - MCADAMS FIRM P.A.
GREENWOOD, MS
662-455-4943
A/E PROJECT NO.:
4452.4-1

CONSULTING A/E:
CONSULTING COMPANY NAME
CONSULTANT'S CITY, STATE

CIVIL ENGINEERING UNIT CLEVELAND
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CLEVELAND, OH 44199-2060

PROJECT ENGINEER:
FISHBAUGH, COLIN

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CIVIL
ALTERNATIVE 2

SHEET ID
PLATE 2

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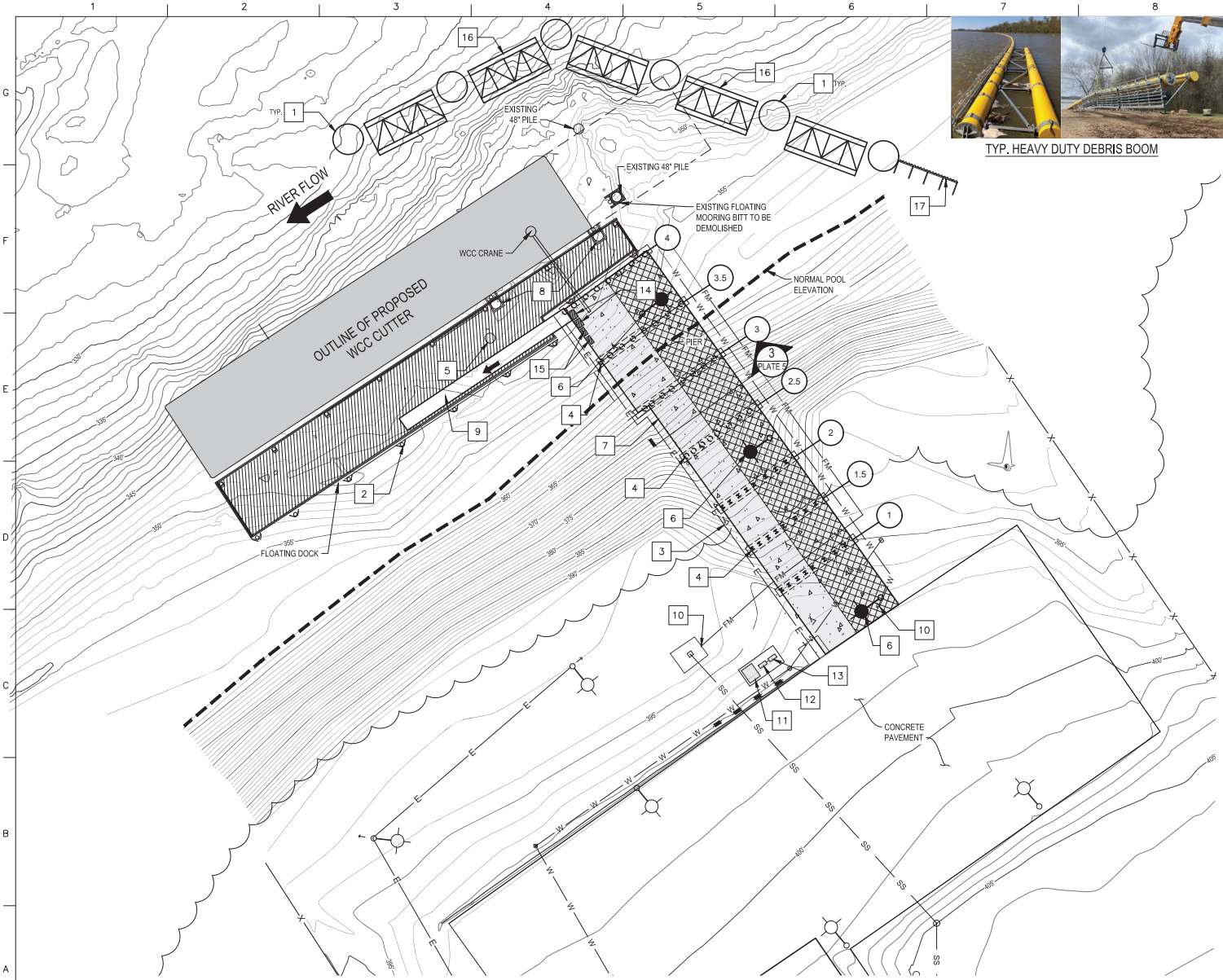
PLATE 2 - ALTERNATIVE NO. 2



TYP. HEAVY DUTY DEBRIS BOOM

KEYED NOTES

1	PROPOSED STONE FILLED SHEET PILE COFFERDAM
2	PROPOSED FLOATING DOCK AND 12" MOORING PILES
3	PROPOSED ELECTRICAL CIRCUITS
4	PROPOSED INTERMEDIATE PILE BENT
5	REMOVE EXISTING 12" MOORING PILE
6	PROPOSED PIER LIGHT
7	PROPOSED WATER/SEWAGE/ELECTRICAL/COMM LINES CONSTRUCTED ON GUARD RAIL (NOT SHOWN FOR CLARITY)
8	PROPOSED MOORING PILE WITH FLOATING BITT
9	PROPOSED ALUMINUM RAMP
10	CONNECT TO EXISTING UTILITIES
11	150 KVA DRY TYPE TRANSFORMER
12	METER INSTALLATION
13	DISTRIBUTION PANEL WITH 400 AMP MAIN BREAKER
14	400 AMP PIN RECEPTACLE
15	100 AMP PIN RECEPTACLE
16	FLOATING DEBRIS BOOM
17	BRACED SHEET PILE WALL

LEGEND

- MAJOR CONTOUR — 365'
- MINOR CONTOUR
- WATER LINE — W
- SANITARY FORCE MAIN — FM
- OVERHEAD ELECTRICAL LINE — E
- EXISTING AREA LIGHT
- PROPOSED AREA LIGHT
- PROPOSED FLOATING DOCK
- PROPOSED STONE FILLED COPPERDAM
- EXISTING PILE BENT
- PROPOSED PILE BENT
- PROPOSED PIER RECONSTRUCTION
- PROPOSED ALUMINUM RAMP
- PIER WIDENING

2 OPTION 3 SITE PLAN
SCALE: 1" = 20'-0"

N

0 10' 20' 40'
SCALE: 1" = 20'

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BRANCH CHIEF

U.S.C.G. CE
U.S. COAST GUARD CIVIL ENGINEERING

MARK	DESCRIPTION	DATE

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T.E. JOHNSON - MCADAMS FIRM P.A.
GREENWOOD, MS
662-455-4943
A/E PROJECT NO.:
6452-4

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1240 EAST 9TH STREET
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CIVIL
ALTERNATIVE 3

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PLATE 3

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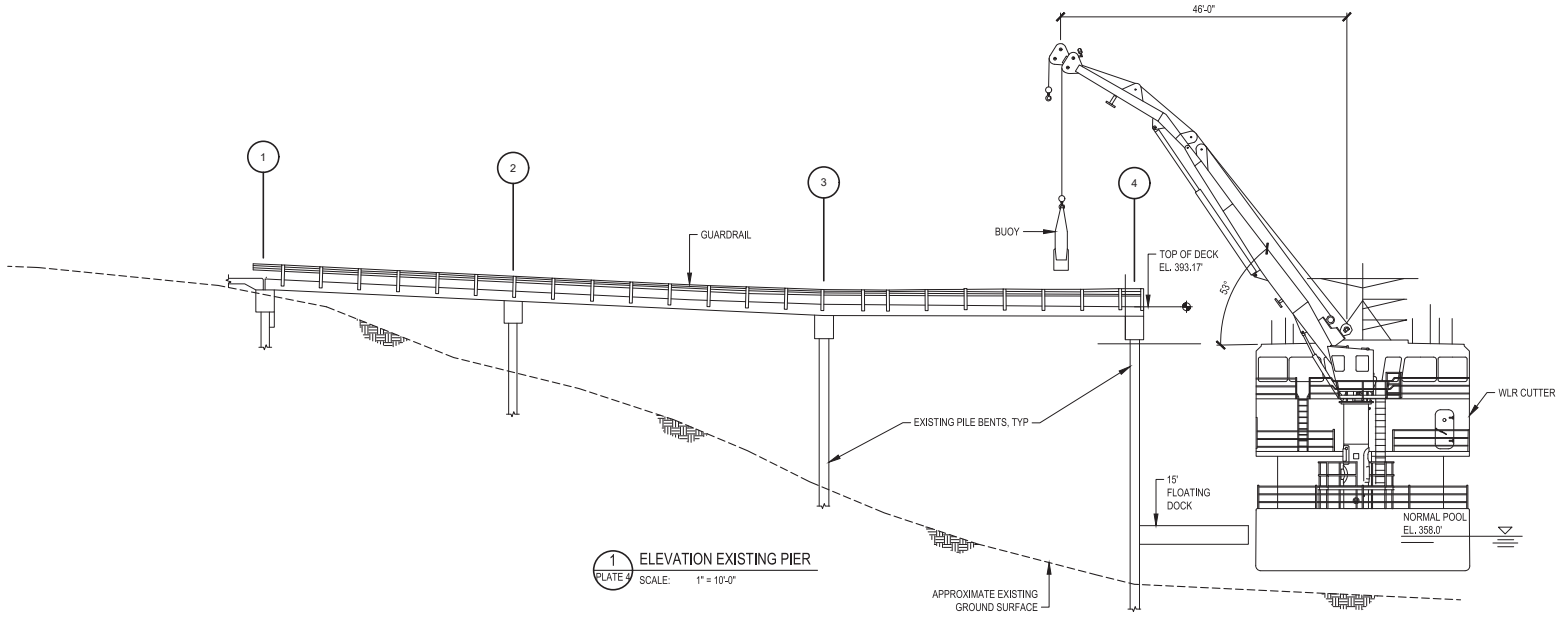
PLATE 3 - ALTERNATIVE NO. 3



1 PLATE 4 ELEVATION EXISTING PIER
SCALE: 1" = 10'-0"

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SCALE: 1"=10'-0"

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CIVIL ENGINEERING

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CIVIL
ELEVATION OF EXIST. PIER

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G. P. LODGE
TECHNICAL DIRECTOR

M. M. BLACKBURN
BRANCH CHIEF

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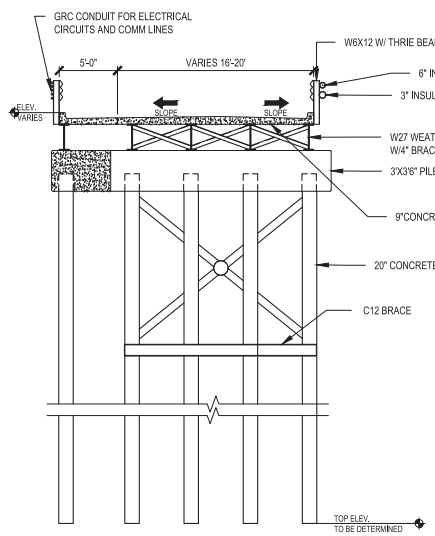
PLATE 4 -ELEVATION OF EXIST. PIER



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SECTION AT NEW PILE BENT
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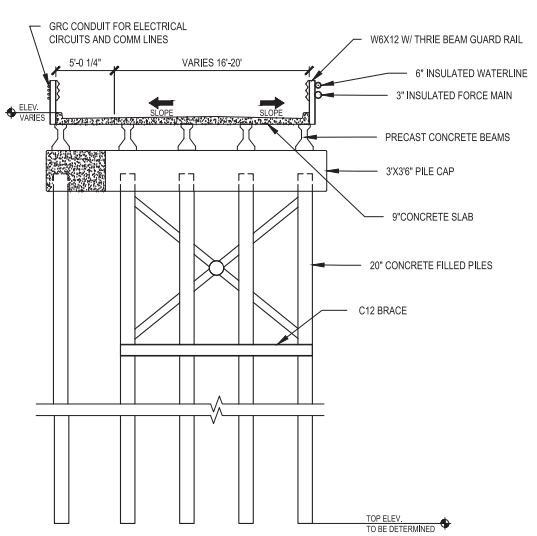

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SECTION AT NEW PILE BENT
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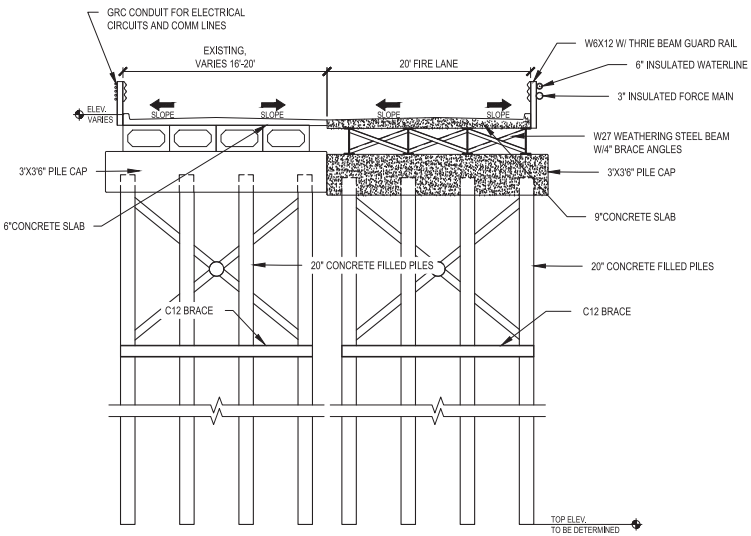

3 PLATE 5 OPTION 3
SECTION AT NEW PILE BENT
SCALE: 3/16" = 1'-0"

0 2' 4' 8' 16'
SCALE: 3/16"= 1'-0"

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BRANCH CHIEF

U.S. COAST GUARD
CIVIL ENGINEERING

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662-455-4943
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CLEVELAND, OH 44199-2060

PROJECT ENGINEER:
FISHBAUGH, COLIN

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CIVIL
TYPICAL PIER SECTIONS

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PLATE 5 - TYPICAL PIER SECTIONS