
Appendix B

Environmental and Cultural Resources

FY: 2024

Project Title: Beattyville, KY FRM Project

Project No.: 498982

Location: Lee County, Kentucky

Section 1: NRCS Soil Report

Section 2: USFWS IPaC Report

Section 3: Kentucky Underground Storage Tank Statewide Report Search Results

Section 4: GHG Analysis Calculations

Section 5: Interagency Meeting Letters, Meeting Notes, and Correspondence

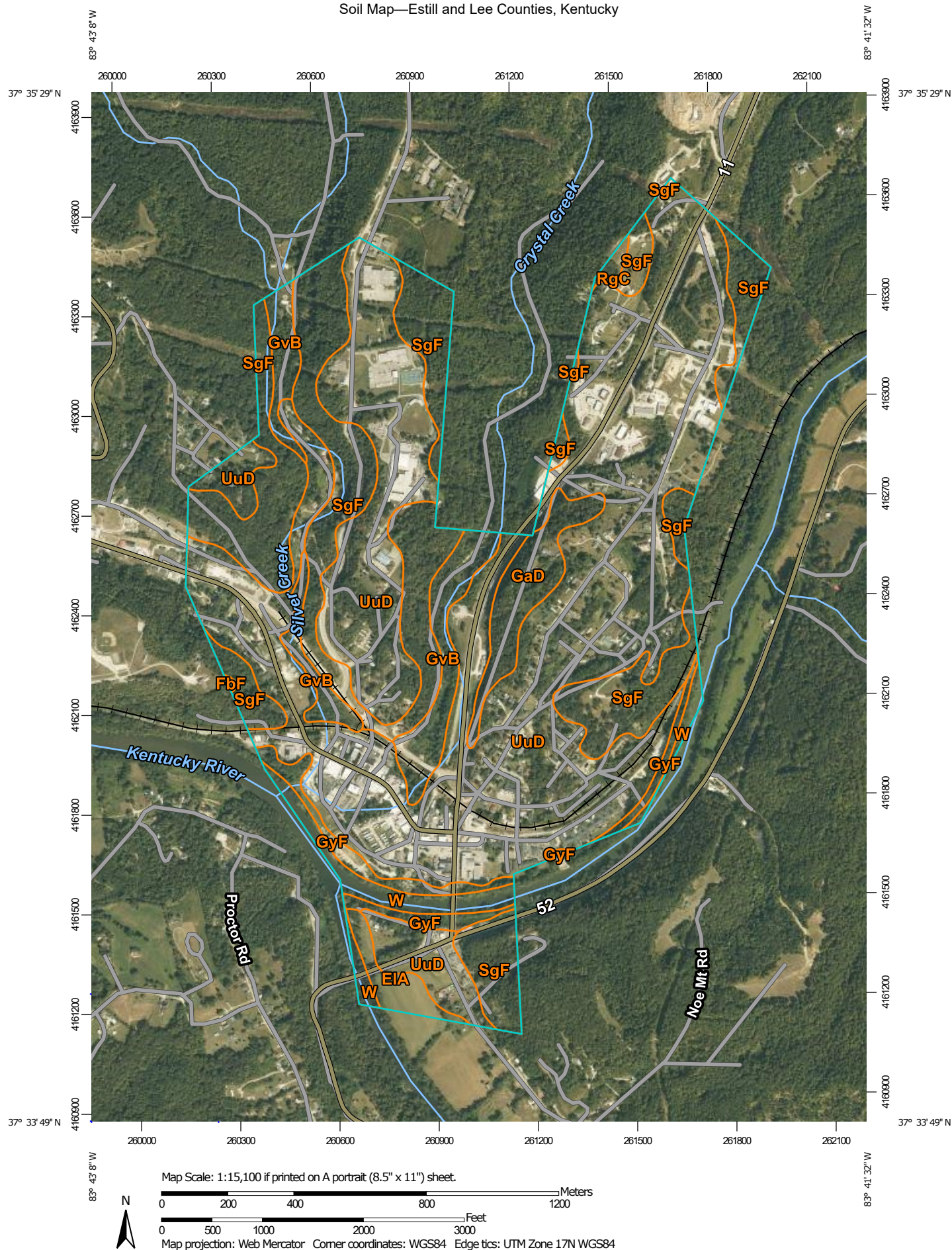
Section 6: Cultural Resources Coordination

Section 7: USFWS Section 7 Concurrence Letter

Section 8: Public Comments


Section 1: NRCS Soil Report

Soil Map—Estill and Lee Counties, Kentucky





MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Estill and Lee Counties, Kentucky

Survey Area Data: Version 24, Sep 10, 2023

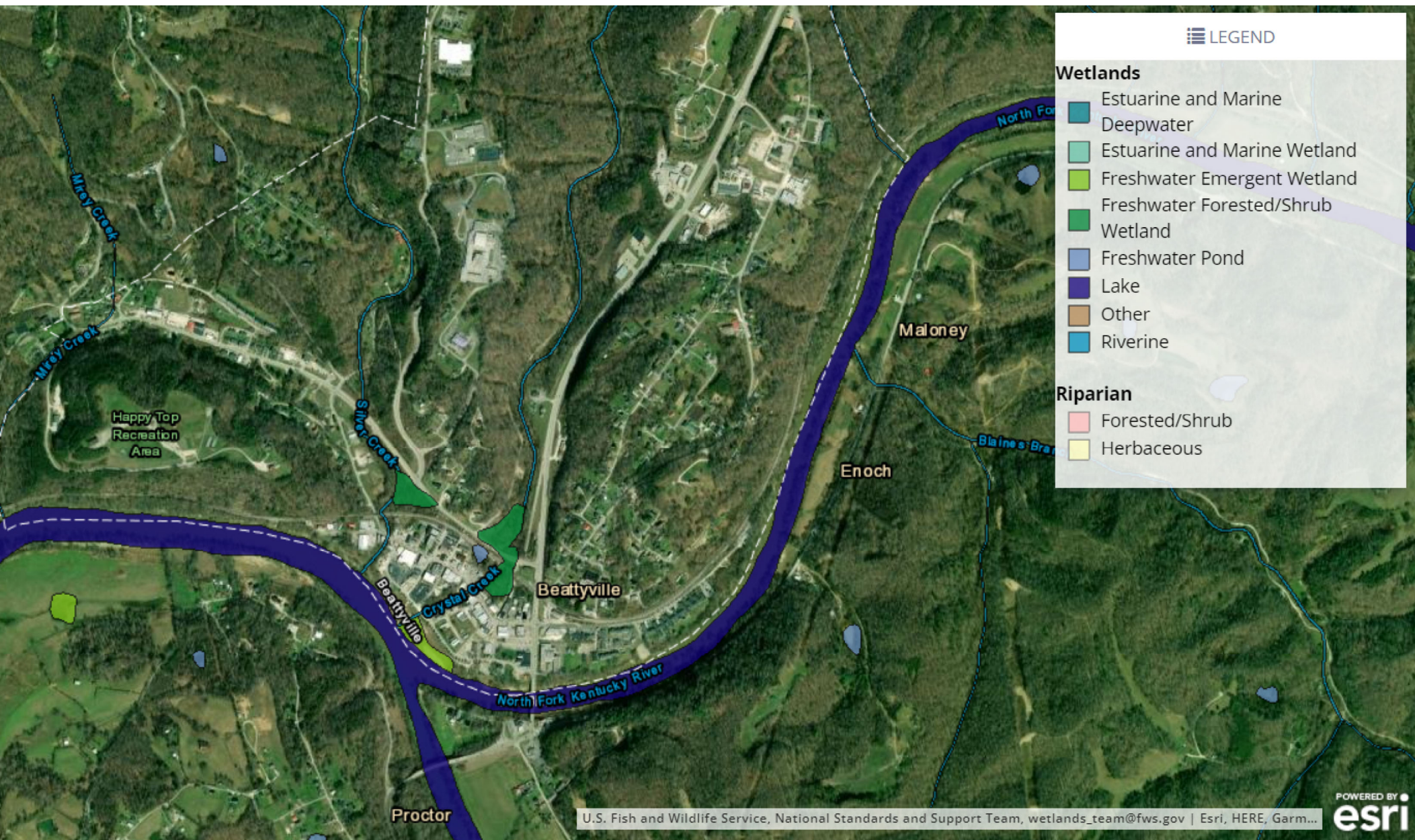
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 29, 2019—Sep 15, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EIA	Elk silt loam, 0 to 2 percent slopes, rarely flooded	7.7	1.2%
FbF	Fairpoint and Bethesda soils, 2 to 70 percent slopes, benched, stony	0.2	0.0%
GaD	Gilpin silt loam, 12 to 20 percent slopes	18.4	3.0%
GvB	Grigsby-Rowdy complex, 0 to 4 percent slopes, occasionally flooded	31.8	5.1%
GyF	Grigsby-Chavies-Yeager complex, 2 to 55 percent slopes, frequently flooded	15.9	2.6%
RgC	Rayne-Gilpin complex, 4 to 12 percent slopes	1.7	0.3%
SgF	Shelocta-Gilpin complex, 20 to 65 percent slopes, stony	145.3	23.4%
UuD	Urban land-Udorthents complex, 0 to 20 percent slopes	383.4	61.8%
W	Water	16.1	2.6%
Totals for Area of Interest		620.5	100.0%





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) 695-0468 Fax: (502) 695-1024
Email Address: kentuckyes@fws.gov



In Reply Refer To:

October 02, 2023

Project Code: 2024-0000310

Project Name: Beattyville Kentucky FRM Study Project

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

Section 2: USFWS IPaC Report

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) 695-0468

PROJECT SUMMARY

Project Code: 2024-0000310
Project Name: Beattyville Kentucky FRM Study Project
Project Type: Levee / Dike - New Construction
Project Description: Study of potential flood reduction measures for Beattyville, Kentucky.
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.57785285,-83.71285207062203,14z>



Counties: Lee County, Kentucky

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 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 Fisheries¹, 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.

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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.
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MAMMALS

NAME	STATUS
<p>Gray Bat <i>Myotis grisescens</i></p> <p>No critical habitat has been designated for this species. This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> ▪ The project area includes potential gray bat habitat. <p>Species profile: https://ecos.fws.gov/ecp/species/6329 General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INF XHM5WGC34MAA2YI/documents/generated/6422.pdf</p>	Endangered
<p>Indiana Bat <i>Myotis sodalis</i></p> <p>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:</p> <ul style="list-style-type: none"> ▪ The project area includes known 'swarming 1' habitat. ▪ The project area includes known 'swarming 2' habitat. <p>Species profile: https://ecos.fws.gov/ecp/species/5949 General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INF XHM5WGC34MAA2YI/documents/generated/6422.pdf</p>	Endangered
<p>Northern Long-eared Bat <i>Myotis septentrionalis</i></p> <p>No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INF XHM5WGC34MAA2YI/documents/generated/6422.pdf</p>	Endangered
<p>Virginia Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii virginianus</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8369 General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INF XHM5WGC34MAA2YI/documents/generated/6422.pdf</p>	Endangered

FISHES

NAME	STATUS
<p>Kentucky Arrow Darter <i>Etheostoma spilotum</i></p> <p>There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9063 General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INF XHM5WGC34MAA2YI/documents/generated/5224.pdf</p>	Threatened

CLAMS

NAME	STATUS
<p>Clubshell <i>Pleurobema clava</i></p> <p>Population: Wherever found; Except where listed as Experimental Populations</p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/3789</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INFXXHM5WGC34MAA2YI/documents/generated/5639.pdf</p>	Endangered
<p>Fanshell <i>Cyprogenia stegaria</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/4822</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INFXXHM5WGC34MAA2YI/documents/generated/5639.pdf</p>	Endangered
<p>Longsolid <i>Fusconaia subrotunda</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/9880</p>	Threatened
<p>Rabbitsfoot <i>Quadrula cylindrica cylindrica</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/5165</p> <p>General project design guidelines: https://ipac.ecosphere.fws.gov/project/J4ZZZVB4INFXXHM5WGC34MAA2YI/documents/generated/5639.pdf</p>	Threatened
<p>Round Hickorynut <i>Obovaria subrotunda</i></p> <p>There is final critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/9879</p>	Threatened
<p>Salamander Mussel <i>Simpsonaias ambigua</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/6208</p>	Proposed Endangered

INSECTS

NAME	STATUS
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: https://ecos.fws.gov/ecp/species/9743</p>	Candidate

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
<p>Kentucky Arrow Darter <i>Etheostoma spilotum</i></p> <p>https://ecos.fws.gov/ecp/species/9063#crithab</p>	Final

IPAC USER CONTACT INFORMATION

Agency: Army Corps of Engineers
Name: Micah Cothren
Address: 600 Martin Luther King Jr. Place, USACE 708
City: Louisville
State: KY
Zip: 40202
Email: micah.v.cothren@usace.army.mil
Phone: 5023156130

Section 3: Kentucky Underground Storage Tank Statewide Report Search Results

Kentucky Underground Storage Tank Statewide Report Search Results.

UST ID	Address	Substance	Capacity in gallons	Status	Leak Detection	Lat.	Long.
54993	79 E Main St	Premium gasoline	6,000	Active	None	37.571283	-83.706774
54993	79 E Main St	Kerosene	3,000	Active	None	37.571283	-83.706774
54993	79 E Main St	Diesel	3,000	Active	None	37.571283	-83.706774
45223	144 Broadway	Empty	1,000	Removal Confirmed	None	37.570717	-83.706045
54043	309 Main St	Oil	550	Removal Confirmed	None	37.573673	-83.711185
66079	KY 11	Diesel	1,000	Removal Confirmed	None	N/A	N/A
66587	E Main St	Gasoline	1,000	Removal Confirmed	None	N/A	N/A
68523	KY 587	Gasoline	550	Removal Confirmed	None	N/A	N/A
68523	KY 587	Gasoline	550	Removal Confirmed	None	N/A	N/A
54043	309 Main St	Regular unleaded gasoline	4,000	Removal Confirmed	None	37.573673	-83.711185
54043	309 Main St	Regular unleaded gasoline	4,000	Removal Confirmed	None	37.573673	-83.711185
54043	309 Main St	Regular unleaded gasoline	6,000	Removal Confirmed	None	37.573673	-83.711185
59990	85 River St	Gasoline	2,000	Removal Confirmed	None	37.569095	-83.708641
59992	KY 11 N	Gasoline	1,000	Removal Confirmed	None	N/A	N/A
59992	KY 11 N	Gasoline	1,000	Removal Confirmed	None	N/A	N/A
60002	284 Main St	Gasoline	8,000	Removal Confirmed	None	37.573611	-83.710556
60002	284 Main St	Gasoline	8,000	Removal Confirmed	None	37.573611	-83.710556
60002	284 Main St	Gasoline	6,000	Removal Confirmed	None	37.573611	-83.710556
60002	284 Main St	DSL	2,000	Removal Confirmed	None	37.573611	-83.710556

Draft - Kentucky River, Beattyville, Kentucky Flood Risk Management
Project Feasibility Study Appendix B Environmental

UST ID	Address	Substance	Capacity in gallons	Status	Leak Detection	Lat.	Long.
60005	17 KY 11 S	Gasoline	5,000	Removal Confirmed	None	37.568889	-83.706944
60005	17 KY 11 S	Gasoline	8,000	Removal Confirmed	None	37.568889	-83.706944
64989	Main St	Gasoline	2000	Removal Confirmed	None	N/A	N/A
65365	KY 11	Gasoline	3,000	Removal Confirmed	None	N/A	N/A
65365	KY 11	Gasoline	2,000	Removal Confirmed	None	N/A	N/A
69745	KY 52 W	Gasoline	1,000	Removal Confirmed	None	N/A	N/A
69745	KY 52 W	Gasoline	500	Removal Confirmed	None	N/A	N/A
168207	28 Railroad St	Diesel	500	Removal Confirmed	Unknown	37.574085	-83.712031
54993	79 E Main St	Regular unleaded gasoline	9,000	Active	Yes	37.571283	-83.706774
54993	79 E Main St	Diesel	3,000	Active	Yes	37.571283	-83.706774
54993	79 E Main St	Premium gasoline	6,000	Active	Yes	37.571283	-83.706774
54993	79 E Main St	Kerosene	3,000	Active	Yes	37.571283	-83.706774
54993	79 E Main St	Diesel	3,000	Active	Yes	37.571283	-83.706774
60005	17 KY 11 S	Diesel	4,000	Active	Yes	37.568889	-83.706944
60005	17 KY 11 S	Premium gasoline	4,000	Active	Yes	37.568889	-83.706944
60005	17 KY 11 S	Regular unleaded gasoline	12,000	Active	Yes	37.568889	-83.706944
105647	285 Main St	Regular unleaded gasoline	12,000	Active	Yes	37.57327	-83.710654
105647	285 Main St	Premium gasoline	3,000	Active	Yes	37.57327	-83.710654
59989	185 Broadway St	Regular unleaded gasoline	10,000	Closed	Yes	37.571437	-83.706561

UST ID	Address	Substance	Capacity in gallons	Status	Leak Detection	Lat.	Long.
59989	185 Broadway St	PLS	8,000	Closed	Yes	37.571437	-83.706561
59989	185 Broadway St	Premium gasoline	8,000	Closed	Yes	37.571437	-83.706561
103802	76 E Main St	Gasoline	8,000	Removal Confirmed	Yes	37.5716151	- 83.7079024
103802	76 E Main St	Gasoline	4,000	Removal Confirmed	Yes	37.5716151	- 83.7079024
103802	76 E Main St	Gasoline	4,000	Removal Confirmed	Yes	37.5716151	- 83.7079024

Section 4: GHG Analysis Calculations

Alternative 3A On Road Emissions Calculation

GHG	Fuel Volume ¹ (Gallons) Or Miles	Emission s Factor ² (Grams of Emissions/ Gallons of	Emission s ³ (kilogram s)	Grams
CO ₂	1,809	8.78	15,883	15883020
CH ₄	61,687	0.0051	0	314.60319
N ₂ O	61,687	0.0014	0	86.3618

34.1 miles per gallons based on 2016 CAFÉ standards for estimated fuel effeciency

Gallons	Miles/Gal	Miles
1809	34.1	61686.9

	D	E	F	G	H	I	J	K	L	M
Green House Gases Emissions Inventory - No-Action Alternative and Alternative 4										
Source		Miles per trip	Trips	Miles/hours	Miles per gallon/gallons per hour	Fuel Type	Gallons			
Worker vehicles		80	3710	296800	34.1	Gasoline	8703.81232			
Emergency Response Vehicles		80	630	50400	12.2	Diesel	4131.14754			
Other vehicles (health and insurance inspections)		80	58.3	4664	34.1	Gasoline	136.774194			
Other vehicles (cleaning supplies)		20	106	2120	34.1	Gasoline	62.170088			
Standard dump truck		80	63	5040	8.1	Diesel	622.222222			
Mid sized tracked excavator (hours)		N/A	N/A	212	2.42	Diesel	87.6033058			
Mid sized bulldozer (hours)		N/A	N/A	212	1.76	Diesel	120.454545			
						Subtotals	Gasoline	8902.7566	Mileage Subtotals	
							Diesel On Road	4753.36976	Gasoline	303584
							Diesel Non Road	208.057851	Diesel On Road	55440
						Grand Total		13656.1264		

	A	B	C	D	E	F	G	H	I	J	K
		HHV ¹ MMBtu/gal)	Default CO ₂ EF ² (kg CO ₂ /MMBtu)	Default CH ₄ EF ² (kg CH ₄ /MMBtu)	Default N ₂ O EF ² (kg N ₂ O/MMBtu)	Alternative 4 and NAA Non Road Diesel Emissions Calculations					
	Distillate Fuel Oil #2 (Diesel)	0.138	73.98550725	0.007318841	0.006811594						
	GHG	Amount of Fuel ³ (Gal)	HHV	EF Coefficient	Total produced ⁴ (metric tons)	Total Produced (grams)	CO ₂ e ⁵		CO ₂ e ⁵		
	CO ₂ Non Road	208	0.138	73.98550725	2.124	2124270.66	2.12 MT		2124270.661	g	
	CH ₄ Non Road	208	0.138	0.0073	0.000	210.14	0.01 MT		5253.460744	g	
	N ₂ O Non Road	208	0.138	6.81E-03	0.000	195.57	0.06 MT		58281.16529	g	
						Project total	2.19 MT		2,187,805.29	g	
¹	High Heat Values (HHV) from Title 40 CFR, Part 98, Subpart C, Table C-1										
²	Emission Factors (EF) from Title 40 CFR, Part 98, Subpart C, Tables C-1 and C-2										
³	Data calculated based on anticipated cleanup effort										
⁴	<div> <div>where:</div> <div>CO₂ = Annual CO₂ mass emissions for the specific fuel type (metric tons).</div> <div>Fuel = Mass or volume of fuel combusted per year, from company records as defined in § 98.6 (express mass in short tons for solid fuel, volume in standard cubic feet for gaseous fuel, and volume in gallons for liquid fuel).</div> <div>HHV = Default high heat value of the fuel, from Table C–1 of this subpart (mmBtu per mass or mmBtu per volume, as applicable).</div> <div>EF = Fuel-specific default CO₂ emission factor, from Table C–1 of this subpart (kg CO₂/mmBtu).</div> <div>1 × 10⁻³ = Conversion factor from kilograms to metric tons.</div> </div>										
⁵	<div> <div>CO₂eq = X*CO + X*CO₂ + Y*N₂O + Z*CH₄</div> <div>Where X = 100 Year Global Warming Potential for Carbon Monoxide and Carbon Dioxide = 1</div> <div>Where Y = 100 Year Global Warming Potential for Nitrous Oxide = 298</div> <div>Where Z = 100 Year Global Warming Potential for Methane = 25</div> </div>										
	CFR Title 40 Chapter I Subchapter C Part 98: Table A-1 Global Warming Potentials										
						CH4 Total	210.14				
						N2O total	195.57				
						CO2 total	2,124,270.66				

NAA and 4 On Road Diesel Emissions Calculation

GHG	Fuel Volume ¹ (Gallons) Or Miles	Emissions Factor ² (Grams of Emissions/ Gallons/Miles)	Emissions ³ (kilogram s)	Grams
CO ₂	4,753	10.21	48,532	48,531,908
CH ₄	55,440	0.0095	1	527
N ₂ O	55,440	0.0431	2	2,389

Assumption: On road diesel is based on a 2017-2021 medium to heavy duty truck

Alternative 4 and NAA On Road Emissions Calculation

GHG	Fuel Volume ¹ (Gallons) Or Miles	Emission s Factor ² (Grams of Emissions/ Gallons of	Emission s ³ (kilogram s)	Grams
CO ₂	8,903	8.78	78,166	78166202.95
CH ₄	303,584	0.0051	2	1548.2784
N ₂ O	303,584	0.0014	0	425.0176

Miles	Gal/mile
303,584	1/34.1
	8,902.76

34.1 miles per gallons based on 2016 CAFÉ standards for estimated fuel effeciency

Alterntative 5A On Road Emissions Calculation

GHG	Fuel Volume ¹ (Gallons) Or Miles	Emission s Factor ² (Grams of Emissions/ Gallons of	Emission s ³ (kilogram s)	Grams
CO ₂	33	8.78	290	289740
CH ₄	1,125	0.0051	0	5.73903
N ₂ O	1,125	0.0014	0	1.57542

34.1 miles per gallons based on 2016 CAFÉ standards for estimated fuel effeciency

Gallons	Miles/gal	Miles
33	34.1	1125.3

	HHV ¹ MMBtu/gal)	Default CO ₂ EF ² (kg CO ₂ /MMBtu)	Default CH ₄ EF ² (kg CH ₄ /MMBtu)	Default N ₂ O EF ² (kg N ₂ O/MMBtu)	Alternative 5B Non Road Diesel Emissions Calculations			
Distillate Fuel Oil #2 (Diesel)	0.138	73.98550725	0.007318841	0.006811594				
GHG	Amount of Fuel ³ (Gal)	HHV	EF Coefficient	Total produced ⁴ (metric tons)	Total Produced (grams)	CO ₂ e ⁵		CO ₂ e ⁵
CO ₂	10,434	0.138	73.98550725	106.531	106531140.00	106.53	MT	106531140 g
CH ₄	10,434	0.138	0.0073	0.011	10538.34	0.26	MT	263458.5 g
N ₂ O	10,434	0.138	6.81E-03	0.010	9807.96	2.92	MT	2922772.08 g
					Project total (6 yrs)	109.72	MT	109,717,370.58 g
					Annual	18.29	MT	18,286,228.43 g
¹ High Heat Values (HHV) from Title 40 CFR, Part 98, Subpart C, Table C-1								
² Emission Factors (EF) from Title 40 CFR, Part 98, Subpart C, Tables C-1 and C-2								
³ Data provided by Cost Engineering.								
⁴ = where: CO ₂ = Annual CO ₂ mass emissions for the specific fuel type (metric tons). Fuel = Mass or volume of fuel combusted per year, from company records as defined in § 98.6 (express mass in short tons for solid fuel, volume in standard cubic feet for gaseous fuel, and volume in gallons for liquid fuel). HHV = Default high heat value of the fuel, from Table C-1 of this subpart (mmBtu per mass or mmBtu per volume, as applicable). EF = Fuel-specific default CO ₂ emission factor, from Table C-1 of this subpart (kg CO ₂ /mmBtu). 1 × 10 ⁻³ = Conversion factor from kilograms to metric tons.					CH4 Total (6yrs)	10,538.34		
					Annual	1,756.39		
					N20 total (6 yrs)	9,807.96		
					Annual	1,634.66		
					CO2 (6 yrs)	106,531,140.00		
					Annual	17,755,190.00		
					Assumption: All gallons of diesel are assumed to be nonroad machinery			
⁵ =								
CO ₂ eq = X*CO + X*CO ₂ + Y*N ₂ O + Z*CH ₄								
Where X = 100 Year Global Warming Potential for Carbon Monoxide and Carbon Dioxide = 1								
Where Y = 100 Year Global Warming Potential for Nitrous Oxide = 298								
Where Z = 100 Year Global Warming Potential for Methane = 25								
CFR Title 40 Chapter I Subchapter C Part 98, Table A-1 Global Warming Potentials								

Alterntative 5B On Road Emissions Calculation

GHG	Fuel Volume ¹ (Gallons) Or Miles	Emission s Factor ² (Grams of Emissions/ Gallons of	Emission s ³ (kilogram s)	Grams
CO ₂	1,311	8.78	11,511	11510580
CH ₄	44,705	0.0051	0	227.99601
N ₂ O	44,705	0.0014	0	62.58714

34.1 miles per gallons based on 2016 CAFÉ standards for estimated fuel effeciency

Gallons	Miles/gal	Miles
1311	34.1	44705.1

A	B	C	D	E	F	G	H	I	J	K
	HHV ¹	Default CO ₂ EF ²	Default CH ₄ EF ²	Default N ₂ O EF ²						
	MMBtu/gal)	(kg CO ₂ /MMBtu)	(kg CH ₄ /MMBtu)	(kg N ₂ O/MMBtu)	Alternative 5C Non Road Diesel Emissions Calculations					
Distillate Fuel Oil #2 (Diesel)	0.138	73.98550725	0.007318841	0.006811594						
GHG	Amount of Fuel ³ (Gal)	HHV	EF Coefficient	Total produced ⁴ (metric tons)	Total Produced (grams)	CO ₂ e ⁵		CO ₂ e ⁵		
CO ₂	53,115	0.138	73.98550725	542.304	542304150.00	542.30	MT	542304150 g		
CH ₄	53,115	0.138	0.0073	0.054	53646.15	1.34	MT	1341153.75 g		
N ₂ O	53,115	0.138	6.81E-03	0.050	49928.10	14.88	MT	14878573.8 g		
						Project total (6 yrs)	558.52	MT	558,523,877.55 g	
						Annual	93.09	MT	93,087,312.93 g	
¹ High Heat Values (HHV) from Title 40 CFR, Part 98, Subpart C, Table C-1										
² Emission Factors (EF) from Title 40 CFR, Part 98, Subpart C, Tables C-1 and C-2										
³ Data provided by Cost Engineering.										
⁴ = where: CO ₂ = Annual CO ₂ mass emissions for the specific fuel type (metric tons). Fuel = Mass or volume of fuel combusted per year, from company records as defined in § 98.6 (express mass in short tons for solid fuel, volume in standard cubic feet for gaseous fuel, and volume in gallons for liquid fuel). HHV = Default high heat value of the fuel, from Table C–1 of this subpart (mmBtu per mass or mmBtu per volume, as applicable). EF = Fuel-specific default CO ₂ emission factor, from Table C–1 of this subpart (kg CO ₂ /mmBtu). 1 × 10 ⁻³ = Conversion factor from kilograms to metric tons.										
⁵ =										
CO ₂ eq = X*CO + X*CO ₂ + Y*N ₂ O + Z*CH ₄										
Where X = 100 Year Global Warming Potential for Carbon Monoxide and Carbon Dioxide = 1										
Where Y = 100 Year Global Warming Potential for Nitrous Oxide = 298										
Where Z = 100 Year Global Warming Potential for Methane = 25										
CFR Title 40 Chapter I Subchapter C Part 98: Table A-1 Global Warming Potentials										
Assumption: All gallons of diesel are assumed to be nonroad machinery										
CH4 Total (6yrs)										
Annual										
N2O total (6 yrs)										
Annual										
CO2 (6 yrs)										
Annual										

Alternative 5C On Road Emissions Calculation

GHG	Fuel Volume ¹ (Gallons) Or Miles	Emission s Factor ² (Grams of Emissions/ Gallons of	Emission s ³ (kilogram s)	Grams
CO ₂	2,954	8.78	25,936	25936120
CH ₄	100,731	0.0051	1	513.73014
N ₂ O	100,734	0.0014	0	141.02816

34.1 miles per gallons based on 2016 CAFÉ standards for estimated fuel effeciency

Gallons	Miles/gal	Miles
2,954	34.1	100731.4

Carbon Sequestration Calculation					
Tons of carbon sequestered per acre at 50 years*	Acres of plantings	Tons of carbon	Metric Tons of Carbon	Total Metric Tons of CO2	Total Grams of CO2
34.6	6.07	210.022	190.5288081	698.6056296	698605629.6
			Annual Total	13.97211259	13972112.59

Where:
1 ton = 0.907185 metric tons
Ratio of carbon to carbon dioxide is 44/12
1 metric ton = 1000000 grams
Study period is 50 years

*Citation: Hoover et al 2021. Standard Estimates of Forest Ecosystem Carbon for Forest Types in the United States. Available online: https://www.fs.usda.gov/nrs/pubs/gtr/gtr_nrs202.pdf. Accessed July 2024

[illegible]

Carbon Dioxide Equivalents (CO ₂ e)	-114,090,770	-251,527	-114	-243,807,270	-337,030	-244
Alternative 4						
Pollutant Emissions (Clean Air Act)	Grams	Pounds	Metric Tons	Grams	Pounds	Metric Tons
Reactive Organic Gases aka Volatile Organic Compounds (ROG/VOC)	0	0	0	0	0	0
Carbon Monoxide (CO)	0	0	0	0	0	0
Sulfur Oxides (SOx)	0	0	0	0	0	0
Nitrous Oxides (NOx)	0	0	0	0	0	0
Particulate Matter - 2.5 micron (PM _{2.5})	0	0	0	0	0	0
Particulate Matter - 10 micron (PM ₁₀)	0	0	0	0	0	0
Lead - (Pb)	0	0	0	0	0	0
Greenhouse Gas Emissions (NEPA)						
Carbon Dioxide (CO ₂)	128,822,381	284,005	129	0	0	0
Methane (CH ₄)	2,285	5	0	0	0	0
Nitrous Oxide (N ₂ O)	3,010	7	0	0	0	0
Carbon Dioxide Equivalents (CO ₂ e)	129,776,505	286,108	130	0	0	0
Alternative 5A						
Pollutant Emissions (Clean Air Act)	Grams	Pounds	Metric Tons	Grams	Pounds	Metric Tons
Reactive Organic Gases aka Volatile Organic Compounds (ROG/VOC)	0	0	0	0	0	0
Carbon Monoxide (CO)	0	0	0	0	0	0
Sulfur Oxides (SOx)	0	0	0	0	0	0
Nitrous Oxides (NOx)	0	0	0	0	0	0
Particulate Matter - 2.5 micron (PM _{2.5})	0	0	0	0	0	0
Particulate Matter - 10 micron (PM ₁₀)	0	0	0	0	0	0
Lead - (Pb)	0	0	0	0	0	0
Greenhouse Gas Emissions (NEPA)						
Carbon Dioxide (CO ₂)	-650,053,220	-1,433,123	-650	-778,875,601	-1,717,128	-779
Methane (CH ₄)	4,780	11	0	2,495	6	0
Nitrous Oxide (N ₂ O)	4,445	10	0	1,435	3	0
Carbon Dioxide Equivalents (CO ₂ e)	-648,609,115	-1,429,939	-649	-778,385,620	-1,716,048	-778
Alternative 5B						

	Carbon Dioxide Equivalents (CO ₂ e)	-648,609,115	-1,429,939	-649	-778,385,620	-1,716,048	-778
0	Alternative 5B						
1	Pollutant Emissions (Clean Air Act)	Grams	Pounds	Metric Tons	Grams	Pounds	Metric Tons
2	Reactive Organic Gases aka Volatile Organic Compounds (ROG/VOC)	0	0	0	0	0	0
3	Carbon Monoxide (CO)	0	0	0	0	0	0
4	Sulfur Oxides (SOx)	0	0	0	0	0	0
5	Nitrous Oxides (NOx)	0	0	0	0	0	0
6	Particulate Matter - 2.5 micron (PM _{2.5})	0	0	0	0	0	0
7	Particulate Matter - 10 micron (PM ₁₀)	0	0	0	0	0	0
8	Lead - (Pb)	0	0	0	0	0	0
9	Greenhouse Gas Emissions (NEPA)						
0	Carbon Dioxide (CO ₂)	-580,563,910	-1,279,925	-581	-709,386,291	-1,563,930	-709
1	Methane (CH ₄)	10,766	24	0	8,481	19	0
2	Nitrous Oxide (N ₂ O)	9,871	22	0	6,860	15	0
3	Carbon Dioxide Equivalents (CO ₂ e)	-577,353,330	-1,272,847	-577	-707,129,836	-1,558,956	-707
4	Alternative 3A						
5	Pollutant Emissions (Clean Air Act)	Grams	Pounds	Metric Tons	Grams	Pounds	Metric Tons
6	Reactive Organic Gases aka Volatile Organic Compounds (ROG/VOC)	0	0	0	0	0	0
7	Carbon Monoxide (CO)	0	0	0	0	0	0
8	Sulfur Oxides (SOx)	0	0	0	0	0	0
9	Nitrous Oxides (NOx)	0	0	0	0	0	0
0	Particulate Matter - 2.5 micron (PM _{2.5})	0	0	0	0	0	0
1	Particulate Matter - 10 micron (PM ₁₀)	0	0	0	0	0	0
2	Lead - (Pb)	0	0	0	0	0	0
3	Greenhouse Gas Emissions (NEPA)						
4	Carbon Dioxide (CO ₂)	2,983,684,980	6,577,905	2,984	2,854,862,599	6,293,900	2,855
5	Methane (CH ₄)	293,897	648	0	291,612	643	0
6	Nitrous Oxide (N ₂ O)	273,322	603	0	270,312	596	0
7	Carbon Dioxide Equivalents (CO ₂ e)	3,072,482,304	6,773,670	3,072	2,942,705,799	6,487,561	2,943
8	Alternative 7						

	A	B	C	D	E	F	G	H
1	Gross and Net Total Emissions for the project alternatives are calculated below:							
2		Include O&M Air Pollutant Emissions In Net Calculations						YES
3		Gross Emissions			Net Emissions			
4	Alternative 1 - No Action Alternative							
5	Pollutant Emissions (Clean Air Act)	Grams	Pounds	Metric Tons	Grams	Pounds	Metric Tons	
6	Reactive Organic Gases aka Volatile Organic Compounds (ROG/VOC)	0	0	0	0	0	0	
7	Carbon Monoxide (CO)	0	0	0	0	0	0	
8	Sulfur Oxides (SOx)	0	0	0	0	0	0	
9	Nitrous Oxides (NOx)	0	0	0	0	0	0	
10	Particulate Matter - 2.5 micron (PM _{2.5})	0	0	0	0	0	0	
11	Particulate Matter - 10 micron (PM ₁₀)	0	0	0	0	0	0	
12	Lead - (Pb)	0	0	0	0	0	0	
13	Greenhouse Gas Emissions (NEPA)							
14	Carbon Dioxide (CO ₂)	128,822,381	284,005	129	0	0	0	
15	Methane (CH ₄)	2,285	5	0	0	0	0	
16	Nitrous Oxide (N ₂ O)	3,010	7	0	0	0	0	
17	Carbon Dioxide Equivalents (CO ₂ e)	129,776,505	286,108	130	0	0	0	
18	TSP (5C)							
19	Pollutant Emissions (Clean Air Act)	Grams	Pounds	Metric Tons	Grams	Pounds	Metric Tons	
20	Reactive Organic Gases aka Volatile Organic Compounds (ROG/VOC)	0	0	0	0	0	0	
21	Carbon Monoxide (CO)	0	0	0	0	0	0	
22	Sulfur Oxides (SOx)	0	0	0	0	0	0	
23	Nitrous Oxides (NOx)	0	0	0	0	0	0	
24	Particulate Matter - 2.5 micron (PM _{2.5})	0	0	0	0	0	0	
25	Particulate Matter - 10 micron (PM ₁₀)	0	0	0	0	0	0	
26	Lead - (Pb)	0	0	0	0	0	0	
27	Greenhouse Gas Emissions (NEPA)							
28	Carbon Dioxide (CO ₂)	-130,365,359	-287,407	-130	-259,187,741	-571,412	-259	
29	Methane (CH ₄)	54,160	119	0	51,875	114	0	
30	Nitrous Oxide (N ₂ O)	50,069	110	0	47,059	104	0	
31	Carbon Dioxide Equivalents (CO ₂ e)	-114,090,770	-251,527	-114	-243,867,276	-537,636	-244	
32	Alternative 4							

Social Costs of Greenhouse Gas Emissions in 2020 Dollars (\$)					
Alternative 5A	Construction Costs	O&M	Wetlands and Aquatic Habitat	Embodied Carbon	Total Social Costs by GHG
Carbon Dioxide (CO ₂)	\$6,660	-\$158,318	\$0	\$0	-\$151,659
Methane (CH ₄)	\$8	\$0	\$0	N/A	\$8
Nitrous Oxide (N ₂ O)	\$188	\$0	\$0	N/A	\$188
Total Social Costs By Activity	\$6,856	-\$158,318	\$0	\$0	

Alternative 5A Gross Total	-\$151,462
Alternative 5A Net Total	-\$168,333

Social Costs of Greenhouse Gas Emissions in 2020 Dollars (\$)					
Alternative 5B	Construction Costs	O&M	Wetlands and Aquatic Habitat	Embodied Carbon	Total Social Costs by GHG
Carbon Dioxide (CO ₂)	\$16,191	-\$158,318	\$0	\$0	-\$142,127
Methane (CH ₄)	\$19	\$0	\$0	N/A	\$19
Nitrous Oxide (N ₂ O)	\$418	\$0	\$0	N/A	\$418
Total Social Costs By Activity	\$16,628	-\$158,318	\$0	\$0	

Alternative 5B Gross Total	-\$141,690
Alternative 5B Net Total	-\$158,561

Social Costs of Greenhouse Gas Emissions in 2020 Dollars (\$)					
Alternative 3A	Construction Costs	O&M	Wetlands and Aquatic Habitat	Embodied Carbon	Total Social Costs by GHG
Carbon Dioxide (CO ₂)	\$409,263	\$0	\$0	\$0	\$409,263
Methane (CH ₄)	\$516	\$0	\$0	N/A	\$516
Nitrous Oxide (N ₂ O)	\$11,573	\$0	\$0	N/A	\$11,573
Total Social Costs By Activity	\$421,352	\$0	\$0	\$0	

Alternative 3A Gross Total	\$421,352
Alternative 3A Net Total	\$404,481

	Social Costs of Greenhouse Gas Emissions in 2020 Dollars (\$)				
Alternative 1 - No Action Alternative	Construction Costs	O&M	Wetlands and Aquatic Habitat	Embodied Carbon	Total Social Costs by GHG
Carbon Dioxide (CO ₂)	\$16,747	\$0	\$0	\$0	\$16,747
Methane (CH ₄)	\$4	\$0	\$0	N/A	\$4
Nitrous Oxide (N ₂ O)	\$120	\$0	\$0	N/A	\$120
Total Social Costs By Activity	\$16,871	\$0	\$0	\$0	

Alternative 1 - No Action Alternative Gross Total	\$16,871
Alternative 1 - No Action Alternative Net Total	\$0

	Social Costs of Greenhouse Gas Emissions in 2020 Dollars (\$)				
TSP (5C)	Construction Costs	O&M	Wetlands and Aquatic Habitat	Embodied Carbon	Total Social Costs by GHG
Carbon Dioxide (CO ₂)	\$77,944	-\$158,318	\$0	\$0	-\$80,375
Methane (CH ₄)	\$95	\$0	\$0	N/A	\$95
Nitrous Oxide (N ₂ O)	\$2,120	\$0	\$0	N/A	\$2,120
Total Social Costs By Activity	\$80,159	-\$158,318	\$0	\$0	

TSP (5C) Gross Total	-\$78,159
TSP (5C) Net Total	-\$95,030

	Social Costs of Greenhouse Gas Emissions in 2020 Dollars (\$)				
Alternative 4	Construction Costs	O&M	Wetlands and Aquatic Habitat	Embodied Carbon	Total Social Costs by GHG
Carbon Dioxide (CO ₂)	\$16,747	\$0	\$0	\$0	\$16,747
Methane (CH ₄)	\$4	\$0	\$0	N/A	\$4
Nitrous Oxide (N ₂ O)	\$120	\$0	\$0	N/A	\$120
Total Social Costs By Activity	\$16,871	\$0	\$0	\$0	

Alternative 4 Gross Total	\$16,871
Alternative 4 Net Total	\$0

Section 5: Interagency Meeting Letters, Meeting Notes, and Correspondence

From: [Howard, Ann C CIV \(USA\)](#)
To: [Mcfadden, Thomas Steele \(Steele\) CIV USARMY CELRL \(USA\)](#); [Sinkhorn, Jacob C CIV USARMY CELRL \(USA\)](#)
Subject: FW: Beattyville Cooperating Agency Letter
Date: Monday, July 14, 2025 9:16:13 AM
Attachments: [image001.png](#)
[image002.wmz](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.emz](#)
[image007.png](#)
[image008.png](#)

Letter to shpo

Sent with BlackBerry Work
(www.blackberry.com)

From: Howard, Ann C CIV (USA) <Ann.C.Howard@usace.army.mil>
Date: Thursday, Dec 19, 2024 at 11:51 AM
To: Konkol, Nicole N (Heritage Council) <nicole.konkol@ky.gov>
Subject: Beattyville Cooperating Agency Letter

Nicole,

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA); Title 40 of the Code of Federal Regulations, part 1501.8, and Section 1005 of the Water Resources Reform and Development Act (WRDA) of 2014 and Section 106 of the National Historic Preservation Act (NHPA), the U.S. Army Corps of Engineers, Louisville District (Corps) is initiating the preparation of an Integrated Feasibility Report and Environmental Assessment (IFR/EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended for the proposed Kentucky River, Beattyville, Kentucky Flood Risk Management Feasibility Study located in Beattyville, Kentucky. In accordance with the Fiscal Responsibility Act of 2023, Section 107(a); 42 U.S.C. § 4336a(a), the lead agency may, with respect to a proposed agency action, designate any Federal, State, Tribal, or local agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal to serve as a cooperating agency. Your agency has been identified as an agency that may have interest in the proposed project based on your jurisdiction by law and/or special expertise. As the lead Federal agency under NEPA, we invite you to be a cooperating agency with the Corps in the development of the IFR/EA. Your designation as a cooperating agency does not imply you support the proposed project, nor does it diminish or otherwise modify your agency's independent statutory obligations and responsibilities under applicable federal laws, regulations, and Executive Orders.

This email follows the letters sent on 17 July 2023, 12 March 2024, and the interagency meeting that occurred on 7 August 2023 to formalize your opportunity to participate in NEPA. As we discussed on the phone, USACE appreciates your collaboration thus far, and the letter below is merely a formality.

Introduction

The Corps completed a General Investigation feasibility study that researched potential flood risk management measures and methods, evaluated these measures, and generated alternatives that sought to meet the objectives of the study. The goal was to provide a recommendation for an optimal solution to reduce flood damages from the Kentucky River and increase resilience within the community of Beattyville, Kentucky, over the 50-year period of analysis. Potential recommendations consisted of structural measures including, but not limited to, impoundments,

floodwalls, levees, pumping stations, and diversions as well as a wide array of nonstructural measures, including but not limited to, floodproofing, acquisitions, elevating in place, relocations and flood warning and emergency evacuation planning. The study focused on Beattyville, Kentucky, near the confluence of the North and South forks of the Kentucky River. Beattyville is the county seat of Lee County, Kentucky. Lee County is the project's non-Federal Sponsor.

Study Authority:

Authority for the Kentucky River, Beattyville, Kentucky General Investigation Feasibility Study is as follows: *Section 6 of the Flood Control Act of 1939, PL 76-396 authorizes the Secretary of the Army to perform examinations and studies for flood control on the Kentucky River and its Tributaries, Kentucky, and the Consolidated Appropriations Act of 2022 (PL 117-103), Division D, Title 1, through an explanatory statement authorized funds for a flood control study at Beattyville Kentucky. Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2215(a), specifies the cost-sharing requirements*

Project Area:

The project area is the city limits of Beattyville, Kentucky. The portion of the community most affected by flood damages is the downtown area of Beattyville. A vicinity map and project area map are depicted in Figure 1 and Figure 2 below.

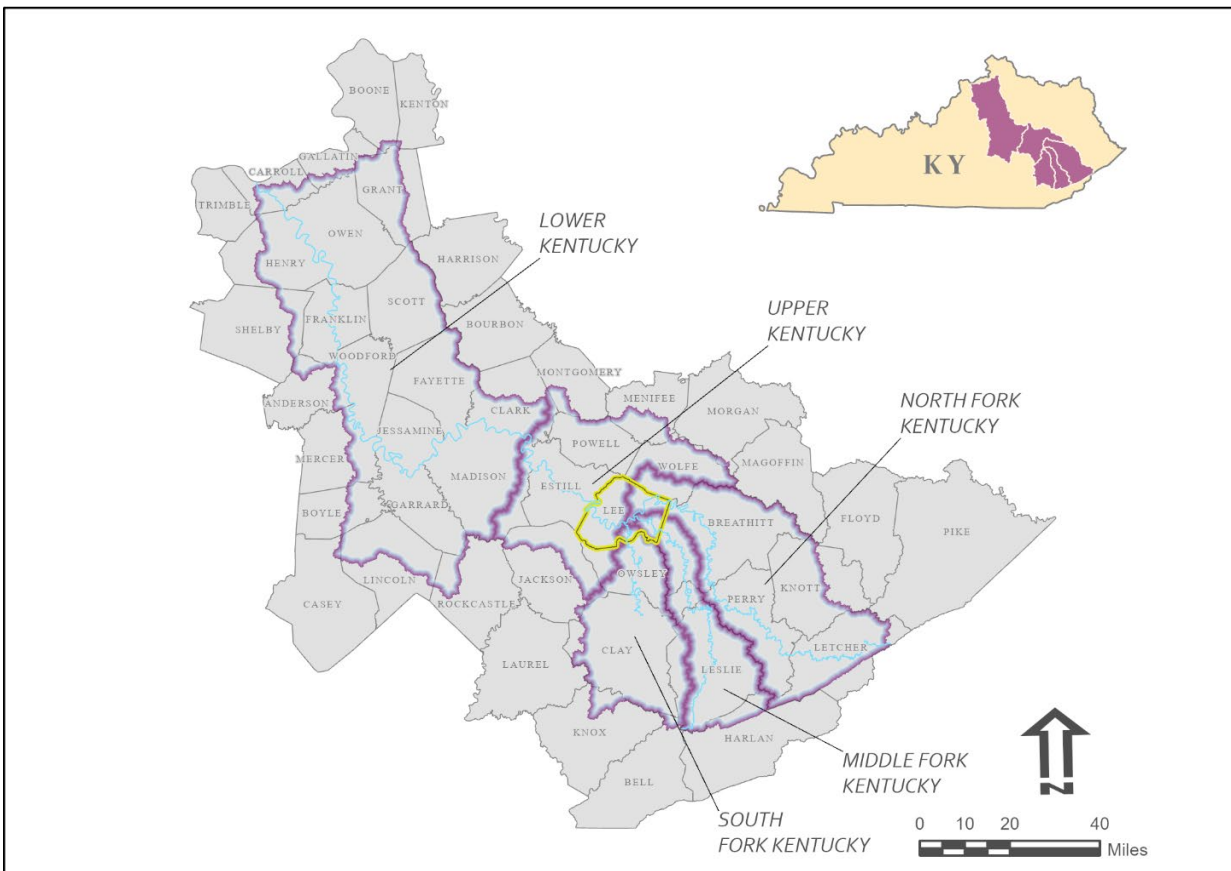


Figure 1. General location map showing the greater Kentucky River watershed and Lee County, Kentucky



LEGEND

City Boundary

FEMA

Floodway

1% Annual Chance Flood Hazard, Detailed Study

1% Annual Chance Flood Hazard, Approximate Study

0.2% Annual Chance Flood Hazard



Figure 2. Flood Zones within the project area.

Purpose and Need

The purpose of this feasibility study is to evaluate flooding concerns in the area and identify potential alternatives that 1) increase life safety, 2) decrease flood risk, and 3) support community cohesion for Beattyville. The need for this feasibility study is the continued flooding of the town of Beattyville, with the most recent flood occurring in March of 2021. These reoccurring flooding disasters pose a threat to life safety, cause economic hardship due to flood damages, and has resulted in the loss of occupation and investment in downtown Beattyville. The compounded effects of Beattyville's location near the convergence of the three forks of the Kentucky River (the North, Middle, and South forks) and the increased frequency and intensity of precipitation predicted for the area, caused by climate change, further support the need for a flood risk management investigation in Beattyville.

Alternatives

Originally, ten alternatives were considered in the final array. These included the no action alternative (Alternative 1), four floodwall alignments at different elevations (Alternatives 2A, 2B, 2C, and 2D), four complete nonstructural plans at different elevations (3A, 3B, 3C, and 3D), and a flood warning emergency evacuation plan (FWEPP)(Alternative 4). After the Tentatively Selected Plan (TSP) milestone, a reformulation of alternatives was performed. To this end an incremental nonstructural approach (Alternative 5) was taken for plan reformulation based on Alternative 4, FWEPP only, as the base. Alternative 5A included a FWEPP, floodplain buy-outs, and beneficial reuse of the floodplain. Alternative 5B includes all of Alternative 5A but adds the protection of essential community assets/services. Finally, Alternative 5C includes all of Alternative 5B, but also includes nonstructural protection for Beattyville's historic district. The final array of alternatives analyzed included Alternatives 1, 3A (complete nonstructural at NAVD 672.2), 4, 5A, 5B, and 5C.

Tentatively Selected Plan

The PDT chose Alternative 5C as the TSP, which includes the following:

FWEPP: A base plan utilizing applicable and appropriate FWEPP elements. This is the base plan because it provides a cost-effective improvement to life safety and supports resilience through floodplain management and improved response to flood events.

Incremental Nonstructural/Floodway Acquisitions in the Kentucky River floodway: Floodway acquisitions are the next increment as the floodway is the area where most flood damages naturally occur, and acquisitions will support the components of the FWEPP that restrict development in the floodway. If a structure's footprint is at least 50% in the FEMA regulatory floodway, then the decision was made to acquire the property or do nothing. The do-nothing option was applied if the property has specific local significance or importance and would cause a detriment if acquired or removed. The floodway acquisitions identified in Alternative 5A also provide a contiguous space where recreational features such as a walking trail, playground area, parking, and a kayak launch area for access to the Kentucky River will provide additional project benefits. Additionally, native planting components may aesthetic qualities of the riverfront, although they have not been quantified for this effort. As of now, these native planting components (native grasses, plantings, and riparian trees) serve only to support the recreation features under consideration.

Essential/Anchor Assets and Services: Structures supporting local services, assets, and anchor businesses such as police stations, courthouses, health centers, groceries, and cultural hubs were considered essential/anchor community assets and services. These structures will be dry (8) or wet (7) floodproofed. Floodproofing these structures will support community resilience by protecting the services that will allow the town to bounce back after a flood event.

Historical Structures: The structures included on Beattyville's NRHP form, for the designation of the downtown commercial area as a historic district, will be either dry (1) or wet (27) floodproofed, with five structures with no action. Floodproofing these structures supports community cohesion by helping to preserve Beattyville's aesthetic characteristics as well as its sense of community pride and history. With Beattyville currently working diligently on a historic district designation, this complete alternative aligns with the community's long-term vision.

Council on Environmental Quality (CEQ) final implementing regulations for NEPA (40 C.F.R. § 1501.8(b)), the Corps requests your assistance and participation in the NEPA process in the following ways:

- a. Attendance at and input during agency coordination meetings, including pre-scoping and scoping;
- b. Comment and feedback on the EA/EIS schedule, overall scope of the document, significant issues to be evaluated in the EA/EIS, environmental impacts, study and assessment methodologies, range of alternatives, and proposed compensatory mitigation, if applicable;
- c. Guidance on relevant technical studies required as part of the EA/EIS;
- d. Identification of issues related to your agency's jurisdiction by law and special expertise;
- e. Participation, as appropriate, at public meetings and hearings; and
- f. Review of the administrative and public drafts of the Draft EA/EIS and Final EA/EIS.

If you have any questions, please reach out.

Thanks,

Annie Howard
Chief, Environmental Resources Section, Planning Branch
Louisville District
(502) 315-6829

From: [Howard, Ann C CIV \(USA\)](#)
To: [Sinkhorn, Jacob C CIV USARMY CELRL \(USA\)](#); [Mcfadden, Thomas Steele \(Steele\) CIV USARMY CELRL \(USA\)](#)
Subject: FW: [Non-DoD Source] RE: [EXTERNAL] Beattyville Cooperating Agency Letter
Date: Monday, July 14, 2025 9:18:38 AM
Attachments: [image001.png](#)
[image011.png](#)
[image015.png](#)
[image005.wmz](#)
[image009.wmz](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

USFWS letter w response

Sent with BlackBerry Work
(www.blackberry.com)

From: Lillpop, Josh C <josh_lillpop@fws.gov>
Date: Thursday, Dec 19, 2024 at 2:17 PM
To: Howard, Ann C CIV (USA) <Ann.C.Howard@usace.army.mil>
Subject: [Non-DoD Source] RE: [EXTERNAL] Beattyville Cooperating Agency Letter

Hi Ann,

Thank you for the opportunity; however, current competing priorities for the Kentucky Field Office preclude our involvement so we respectfully decline the opportunity to be a cooperating agency for this action.

Thanks,

Josh Lillpop
Deputy Field Supervisor
U.S. Fish and Wildlife Service
Kentucky Field Office
330 West Broadway, Room 265
Frankfort, KY 40601
Office: 502-653-0545
Cell: 502-545-9287

[Kentucky Ecological Services Field Office | U.S. Fish & Wildlife Service \(fws.gov\)](#)

**This email correspondence and any attachments to and from this sender are subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.*

From: Howard, Ann C CIV (USA) <Ann.C.Howard@usace.army.mil>
Sent: Thursday, December 19, 2024 11:33 AM

To: Lillpop, Josh C <josh_lillpop@fws.gov>

Subject: [EXTERNAL] Beattyville Cooperating Agency Letter

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Josh,

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA); Title 40 of the Code of Federal Regulations, part 1501.8, and Section 1005 of the Water Resources Reform and Development Act (WRDA) of 2014 and Section 106 of the National Historic Preservation Act (NHPA), the U.S. Army Corps of Engineers, Louisville District (Corps) is initiating the preparation of an Integrated Feasibility Report and Environmental Assessment (IFR/EA) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended for the proposed Kentucky River, Beattyville, Kentucky Flood Risk Management Feasibility Study located in Beattyville, Kentucky. In accordance with the Fiscal Responsibility Act of 2023, Section 107(a); 42 U.S.C. § 4336a(a), the lead agency may, with respect to a proposed agency action, designate any Federal, State, Tribal, or local agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal to serve as a cooperating agency. Your agency has been identified as an agency that may have interest in the proposed project based on your jurisdiction by law and/or special expertise. As the lead Federal agency under NEPA, we invite you to be a cooperating agency with the Corps in the development of the IFR/EA. Your designation as a cooperating agency does not imply you support the proposed project, nor does it diminish or otherwise modify your agency's independent statutory obligations and responsibilities under applicable federal laws, regulations, and Executive Orders.

This email follows the letters sent on 17 July 2023, 12 March 2024, and the interagency meeting that occurred on 7 August 2023 to formalize your opportunity to participate in NEPA. As we discussed on the phone, USACE appreciates your collaboration thus far, and the letter below is merely a formality.

Introduction

The Corps completed a General Investigation feasibility study that researched potential flood risk management measures and methods, evaluated these measures, and generated alternatives that sought to meet the objectives of the study. The goal was to provide a recommendation for an optimal solution to reduce flood damages from the Kentucky River and increase resilience within the community of Beattyville, Kentucky, over the 50-year period of analysis. Potential recommendations consisted of structural measures including, but not limited to, impoundments, floodwalls, levees, pumping stations, and diversions as well as a wide array of nonstructural measures, including but not limited to, floodproofing, acquisitions, elevating in place, relocations and flood warning and emergency evacuation planning. The study focused on Beattyville, Kentucky, near the confluence of the North and South forks of the Kentucky River. Beattyville is the county seat of Lee County, Kentucky. Lee County is the project's non-Federal Sponsor.

Study Authority:

Authority for the Kentucky River, Beattyville, Kentucky General Investigation Feasibility Study is as follows:
Section 6 of the Flood Control Act of 1939, PL 76-396 authorizes the Secretary of the Army to perform examinations and studies for flood control on the Kentucky River and its Tributaries, Kentucky, and the Consolidated Appropriations Act of 2022 (PL 117-103), Division D, Title 1, through an explanatory statement authorized funds for a flood control study at Beattyville Kentucky. Section 105(a) of the Water Resources Development Act of 1986, Public Law 99-662, as

amended (33 U.S.C. 2215(a), specifies the cost-sharing requirements

Project Area:

The project area is the city limits of Beattyville, Kentucky. The portion of the community most affected by flood damages is the downtown area of Beattyville. A vicinity map and project area map are depicted in Figure 1 and Figure 2 below.

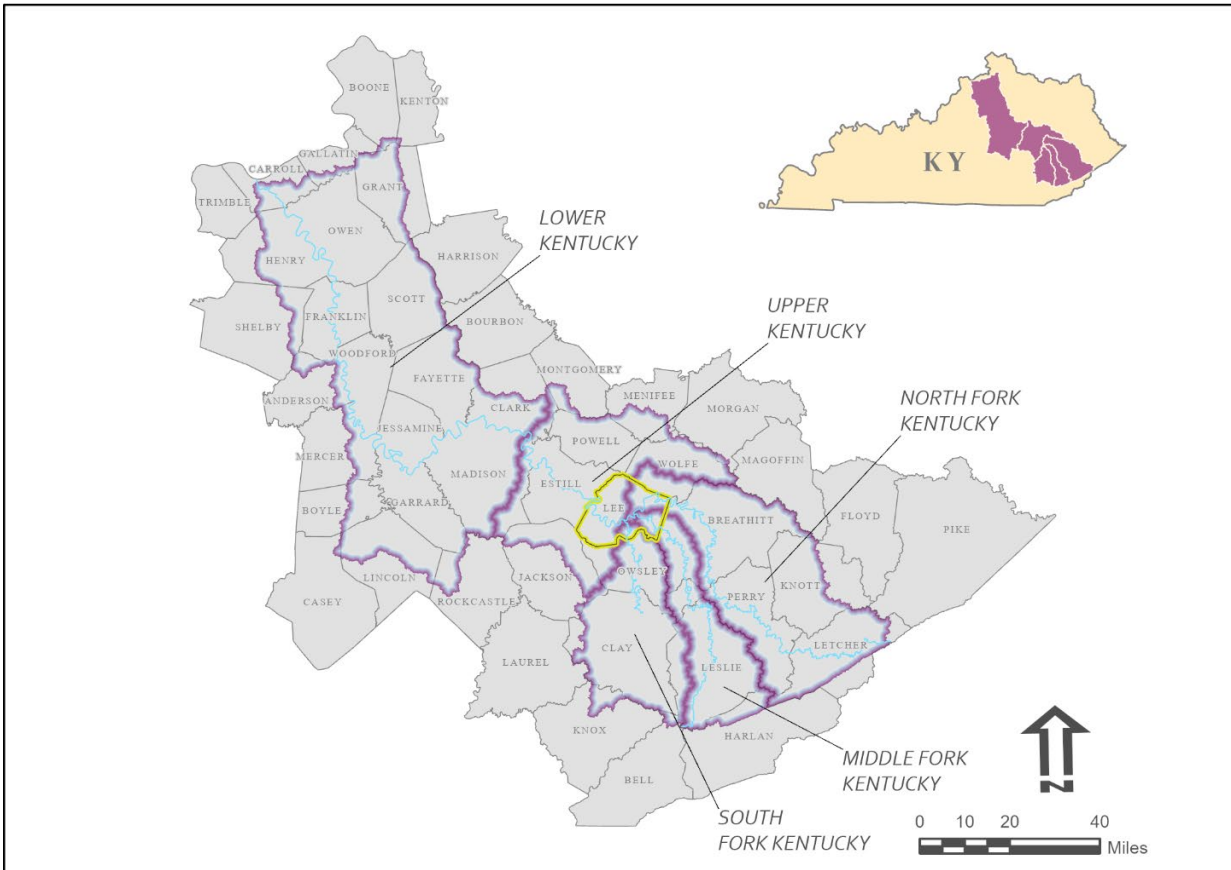


Figure 1. General location map showing the greater Kentucky River watershed and Lee County, Kentucky

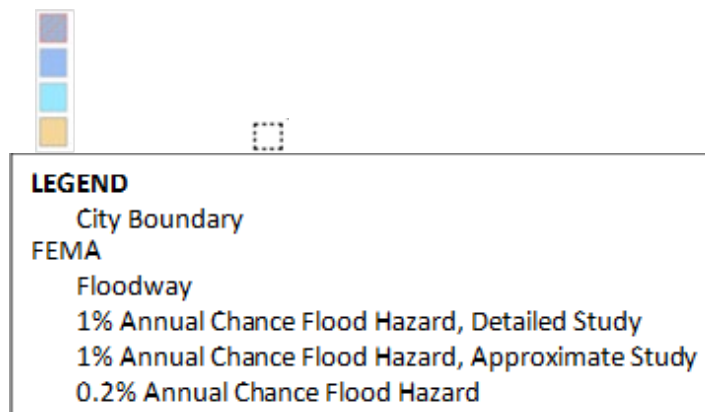




Figure 2. Flood Zones within the project area.

Purpose and Need

The purpose of this feasibility study is to evaluate flooding concerns in the area and identify potential alternatives that 1) increase life safety, 2) decrease flood risk, and 3) support community cohesion for Beattyville. The need for this feasibility study is the continued flooding of the town of Beattyville, with the most recent flood occurring in March of 2021. These reoccurring flooding disasters pose a threat to life safety, cause economic hardship due to flood damages, and has resulted in the loss of occupation and investment in downtown Beattyville. The compounded effects of Beattyville's location near the convergence of the three forks of the Kentucky River (the North, Middle, and South forks) and the increased frequency and intensity of precipitation predicted for the area, caused by climate

change, further support the need for a flood risk management investigation in Beattyville.

Alternatives

Originally, ten alternatives were considered in the final array. These included the no action alternative (Alternative 1), four floodwall alignments at different elevations (Alternatives 2A, 2B, 2C, and 2D), four complete nonstructural plans at different elevations (3A, 3B, 3C, and 3D), and a flood warning emergency evacuation plan (FWEPP)(Alternative 4). After the Tentatively Selected Plan (TSP) milestone, a reformulation of alternatives was performed. To this end an incremental nonstructural approach (Alternative 5) was taken for plan reformulation based on Alternative 4, FWEPP only, as the base. Alternative 5A included a FWEPP, floodplain buy-outs, and beneficial reuse of the floodplain. Alternative 5B includes all of Alternative 5A but adds the protection of essential community assets/services. Finally, Alternative 5C includes all of Alternative 5B, but also includes nonstructural protection for Beattyville's historic district. The final array of alternatives analyzed included Alternatives 1, 3A (complete nonstructural at NAVD 672.2), 4, 5A, 5B, and 5C.

Tentatively Selected Plan

The PDT chose Alternative 5C as the TSP, which includes the following:

FWEPP: A base plan utilizing applicable and appropriate FWEPP elements. This is the base plan because it provides a cost-effective improvement to life safety and supports resilience through floodplain management and improved response to flood events.

Incremental Nonstructural/Floodway Acquisitions in the Kentucky River floodway: Floodway acquisitions are the next increment as the floodway is the area where most flood damages naturally occur, and acquisitions will support the components of the FWEPP that restrict development in the floodway. If a structure's footprint is at least 50% in the FEMA regulatory floodway, then the decision was made to acquire the property or do nothing. The do-nothing option was applied if the property has specific local significance or importance and would cause a detriment if acquired or removed. The floodway acquisitions identified in Alternative 5A also provide a contiguous space where recreational features such as a walking trail, playground area, parking, and a kayak launch area for access to the Kentucky River will provide additional project benefits. Additionally, native planting components may aesthetic qualities of the riverfront, although they have not been quantified for this effort. As of now, these native planting components (native grasses, plantings, and riparian trees) serve only to support the recreation features under consideration.

Essential/Anchor Assets and Services: Structures supporting local services, assets, and anchor businesses such as police stations, courthouses, health centers, groceries, and cultural hubs were considered essential/anchor community assets and services. These structures will be dry (8) or wet (7) floodproofed. Floodproofing these structures will support community resilience by protecting the services that will allow the town to bounce back after a flood event.

Historical Structures: The structures included on Beattyville's NRHP form, for the designation of the downtown commercial area as a historic district, will be either dry (1) or wet (27) floodproofed, with five structures with no action. Floodproofing these structures supports community cohesion by helping to preserve Beattyville's aesthetic characteristics as well as its sense of community pride and history. With Beattyville currently working diligently on a historic district designation, this complete alternative aligns with the community's long-term vision.

Council on Environmental Quality (CEQ) final implementing regulations for NEPA (40 C.F.R. § 1501.8(b)), the Corps requests your assistance and participation in the NEPA process in the following ways:

- a. Attendance at and input during agency coordination meetings, including pre-scoping and scoping;
- b. Comment and feedback on the EA/EIS schedule, overall scope of the document, significant issues to be evaluated in the EA/EIS, environmental impacts, study and assessment methodologies, range of alternatives, and proposed compensatory mitigation, if applicable;
- c. Guidance on relevant technical studies required as part of the EA/EIS;
- d. Identification of issues related to your agency's jurisdiction by law and special expertise;

- e. Participation, as appropriate, at public meetings and hearings; and
- f. Review of the administrative and public drafts of the Draft EA/EIS and Final EA/EIS.

Please provide your written acceptance or declination of this invitation within 30 days of receipt of this email. If a response to our invitation is not received within 30 days, the Corps will assume your acceptance as a cooperating agency. Should you decline to accept our invitation to be a cooperating agency, we advise you provide a copy of your response to CEQ as specified at 40 C.F.R. § 1501.8(c). We look forward to working with your agency on the preparation of the IFR/EA. If you have any questions or would like to discuss our respective roles and responsibilities during the NEPA process in more detail, please feel free to contact me.

Thanks,

Annie Howard
Chief, Environmental Resources Section, Planning Branch
Louisville District
(502) 315-6829



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

March 12, 2024

Civil Works - Planning, Programs
and Project Management Branch
Environmental Resources Section

To All Interested Parties:

The U.S. Army Corps of Engineers, Louisville District (Corps) is preparing an Environmental Assessment (EA), under the National Environmental Policy Act (NEPA) of 1969, as amended, to evaluate alternatives for the City of Beattyville, Lee County, Kentucky General Investigation Feasibility Study. Alternatives are currently being considered for the project to address the ongoing flood risk that the community faces, and we are continuing scoping efforts after the interagency meeting that was held on August 7, 2023. Construction of a floodwall, as well as nonstructural measures, have been evaluated to address flooding. Nonstructural measures include the acquisition and removal, floodproofing, or raising of structures. There are two primary action alternatives currently being considered, including: 1) two separate floodwalls with nonstructural measures applied to the structures outside of the floodwalls, and 2) a complete nonstructural plan in which all at-risk structures would be considered for acquisition and removal, floodproofing, or raising in place. Maps of these proposed alternatives are enclosed for your review.

In accordance with NEPA and associated implementing regulations, the EA will be prepared to evaluate viable alternatives, including the "No Action" alternative, for the project. We request any information you may have about resources (such as biological and cultural) in or around the project area that should be considered in the assessment. This information will aid in further development and evaluation of alternatives. This EA will provide the basis for a decision whether to proceed with an Environmental Impact Statement or a Finding of No Significant Impact. You or your agency will be notified when the draft EA is available for public review.

We request that you send any comments or information you can provide by April 11, 2024. If you have any questions regarding this project, please contact Steele McFadden at steele.mcfadden@usace.army.mil or (502) 315-7451. You may submit comments to the same email address or send by mail to:

U.S. Army Corps of Engineers, Louisville District
Attn: Steele McFadden, Room 708
PO Box 59
Louisville, KY 40201-0059

Sincerely,

Ann Howard

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Howard
Date: 2024.03.12
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Ann Howard
Chief, Environmental Resources Section

Enclosure

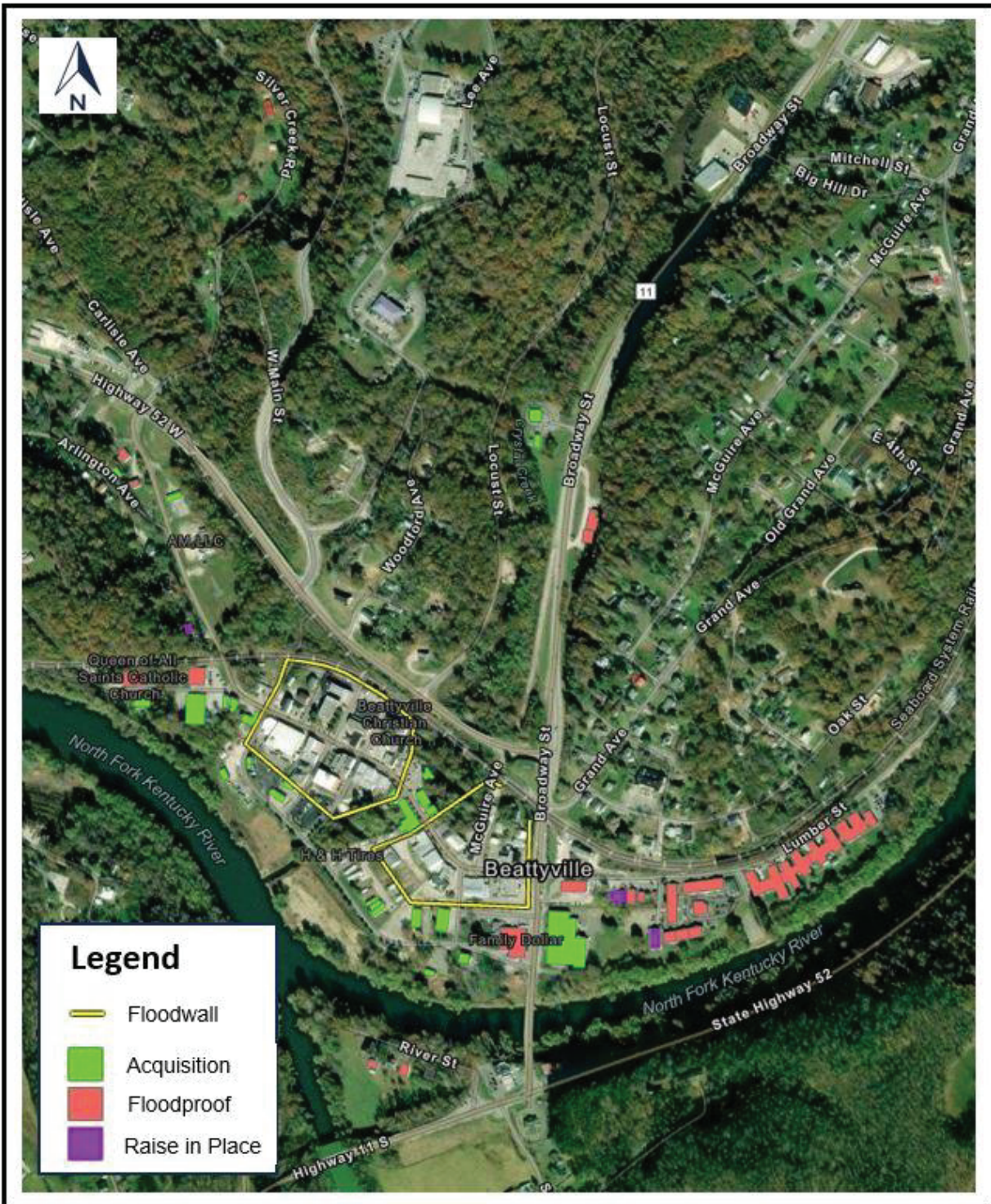


Figure 1. Floodwall construction combined with nonstructural measures.

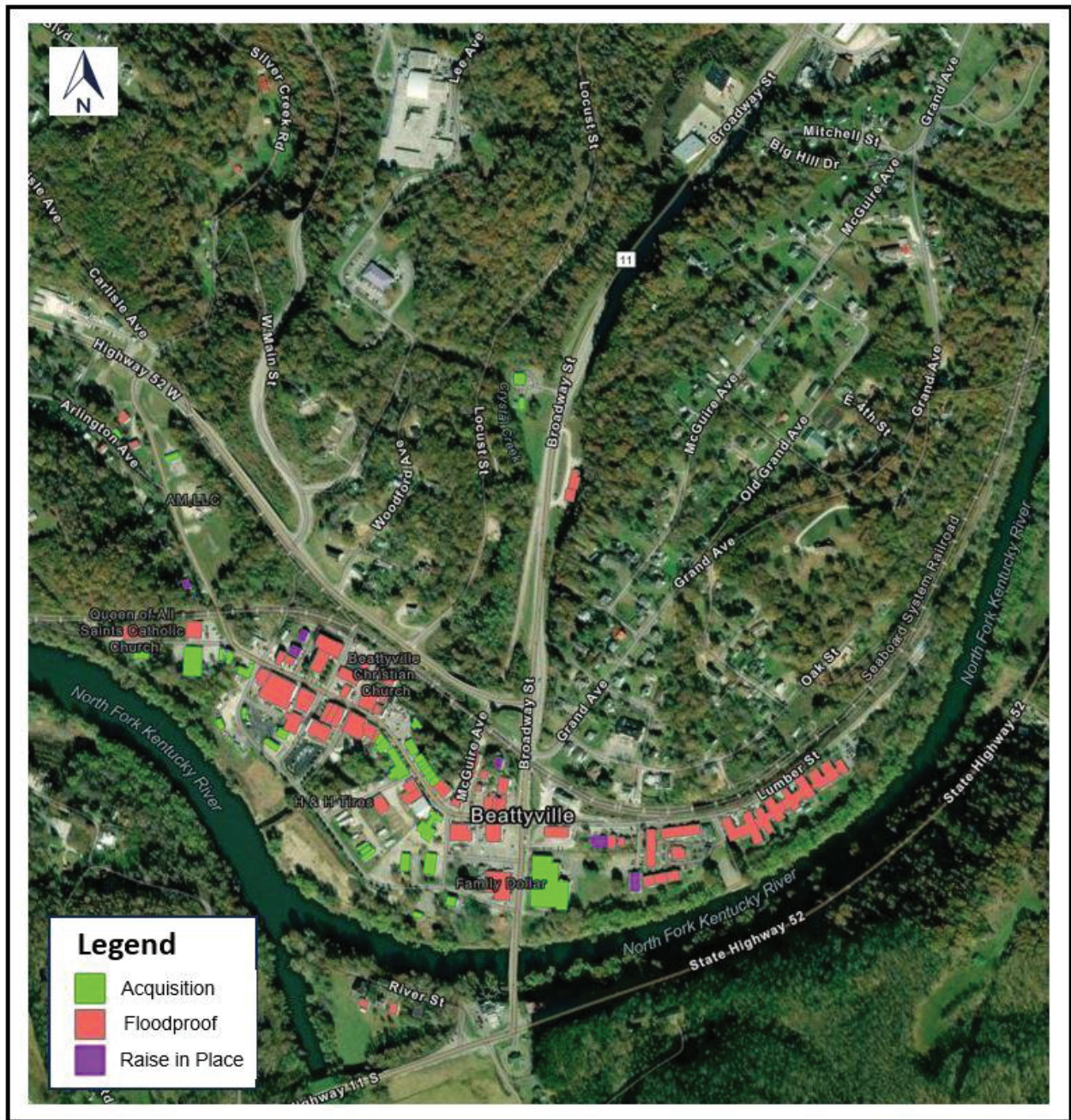


Figure 2. Total nonstructural plan.



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

July 18, 2023

Planning, Programs, and
Project Management Division

To All Interested Parties:

In accordance with regulations pertaining to the National Environmental Policy Act (NEPA); Title 40 of the Code of Federal Regulations, part 1501.8, and Section 1005 of the Water Resources Reform and Development Act (WRDA) of 2014 and Section 106 of the National Historic Preservation Act (NHPA), the U.S. Army Corps of Engineers, Louisville District (Corps) is inviting you and your agency and/or Tribe to participate in the scoping process to evaluate alternatives for the City of Beattyville, Lee County, Kentucky General Investigation Feasibility Study. This project is authorized under Section 203 of the Flood Control Act of 1962 and would research all available flood reduction methods, including but not limited to impoundments, floodwalls, levees, gated structures, pumping stations, and diversions, as well as a wide array of non-structural measures, including but not limited to flood proofing, relocation, elevating, and flood warning emergency evacuation planning. The study would seek to provide recommendations for optimal solutions to alleviate flooding from the Kentucky River.

The Corps will be holding an Interagency Meeting on Monday, August 7, 2023, from 2:00 to 3:00 p.m. to inform agencies and Tribes of the ongoing project scoping and measures that are being considered. We request that you attend the meeting and provide any information about the potential project area that would be relevant to the study. Subsequent consultation relating to NEPA and Section 106 of the NHPA will be forthcoming after the Interagency Meeting.

The meeting can be attended online:
<https://usace1.webex.com/usace1/j.php?MTID=m4f7c3c6ffe47788791635a2d9a17840d>

Or by phone: 1-844-800-2712 (Meeting number – 2764 794 3106)

If you have any questions regarding this interagency meeting or the overall study, please contact Jacob Sinkhorn at Jacob.C.Sinkhorn@usace.army.mil or (502) 315-6286.

Sincerely,

Ann

Howard

Ann C. Howard

Chief, Environmental Resources Section

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Ann Howard
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Beattyville Interagency Meeting

1. Meeting Details

Date: August 7, 2023

2. Attendees:

U.S. Army Corps of Engineers (USACE)

- a. Jacob Sinkhorn
- b. Steele McFadden
- c. Chris Wernick
- d. Lacey Gabbard
- e. Carrie Fry
- f. Brennan Gregory

Larry Long – U.S. EPA

Ntale Kajumba – U.S. EPA

Shawn Hokanson – Kentucky Division of Water

Caitlin Nichols – Osage Nation

3. Meeting Purpose

The purpose of this meeting was to:

- Provide a brief overview of the project
- Deliver the proposed schedule and status update for the study
- Deliver proposed measures and alternatives being considered during the planning process
- Review already known environmental permitting requirements and concerns (Kentucky Arrow Darter)
- Have stakeholders provide input on risks to the project
- Have stakeholders provide input on requirements not mentioned

4. Presentation

The USACE presented a PowerPoint presentation detailing an overview of the project and objectives, updated project schedule, details of alternatives being considered, known environmental concerns and permits, and known cultural resources and expected upcoming section 106 coordination. Feedback was requested on potential project risks and requirements not discussed in the presentation.

5. Summary of Feedback:

Larry Long Question: Is this project funded through BIL funding or other sources?

USACE Answer: No, this project was specifically authorized by congress (Congressionally Directed Spending).

Larry Long Question: Are you reaching out to Tribes?

USACE Answer: Yes, we are beginning coordination with Tribes and the SHPO with this interagency meeting, and once a Tentatively Selected Plan is chosen formal consultation with Tribes and the SHPO would be complete.

Larry Long Question: Will you be sending out scoping letters?

USACE Answer: Yes, once we have chosen a Tentatively Selected Plan the NEPA scoping process will begin and scoping letters will be sent out to agencies for comment.

Caitlin Nichols Comment: Tribes currently have a very high workload, and it is challenging to respond to all requests for input in a timely manner. Do not take this as a sign that Tribes do not care about the project. Please follow up with phone calls and emails and do not take no response as a “go-ahead” from the Tribes. Additionally, many Tribes have websites that list the proper way to notify for project review, please use this.

USACE Response: Absolutely understand. We can be sure to follow up two weeks after submitting the project for reviews to ensure that it has been received and see if additional time is needed for review.

Larry Long Comment: At this point in the project there is not enough detail to make any comments on the project. We look forward to hearing more about the project and receiving scoping letters, in which we will send out formal responses.

USACE Response: Thank you, we will be sending scoping letters sometime around March 2024.

Caitlin Nichols Question: Can you send the slides for review.

USACE Answer: Yes.

Section 6: Cultural Resources Coordination



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

March 15, 2024

Planning, Programs, and
Project Management Division

Mr. Craig Potts
Executive Director and State Historic Preservation Officer
410 High Street
Frankfort, Kentucky 40601

Dear Mr. Potts:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

This Undertaking is currently within the Feasibility Phase of planning and specific details related to the scope of work (SOW) are incomplete at this time. However, the Tentatively Selected Plan (TSP) has been defined as the Nonstructural Alternative and the FWEEP which is outlined in Attachment 1 (Enclosed). The TSP provides the basis for the area of potential effect (APE) and is defined by the structures located within the 500-year floodplain (see Figure 1 in Attachment 1). Currently, USACE proposes the following level of effort (LOE) to identify historic properties within the APE:

1. A background review of known historic structures and historic properties within the APE.
2. Develop and award a contract to evaluate the National Register of Historic Places (NRHP) significance for the identified structures eligible for nonstructural measures.
3. Provide the final Cultural Historic Report to KHC for review and comment.
4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to KHC for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

Ann
Howard

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Ann Howard
Date: 2024.03.15
15:06:15 -04'00'

Ann Howard
Chief, Environmental Resources Section

Enclosure



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

March 15, 2024

Planning, Programs and
Project Management Division

Devon Frazier
Absentee-Shawnee Tribe of Oklahoma
2025 S Gordon Cooper Dr.
Shawnee, OK 74801

Dear Ms. Frazier:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

This Undertaking is currently within the Feasibility Phase of planning and specific details related to the scope of work (SOW) are incomplete at this time. However, the Tentatively Selected Plan (TSP) has been defined as the Nonstructural Alternative and the FWEEP which is outlined in Attachment 1 (Enclosed). The TSP provides the basis for the area of potential effect (APE) and is defined by the structures located within the 500-year floodplain (see Figure 1 in Attachment 1). Currently, USACE proposes the following level of effort (LOE) to identify historic properties within the APE:

1. A background review of known historic structures and historic properties within the APE.
2. Develop and award a contract to evaluate the National Register of Historic Places (NRHP) significance for the identified structures eligible for nonstructural measures.
3. Provide the final Cultural Historic Report to the Absentee-Shawnee Tribe of Oklahoma for review and comment.
4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to the Absentee-Shawnee Tribe of Oklahoma for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ann Howard". The signature is fluid and cursive, with the first name "Ann" and the last name "Howard" clearly distinguishable.

Ann Howard
Chief, Environmental Resources Section



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

March 15, 2024

Planning, Programs and
Project Management Division

Elizabeth Toombs, THPO
Cherokee Nation
P.O. Box 948
Tahlequah, OK 74465

Dear Ms. Toombs:

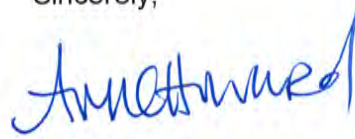
The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

This Undertaking is currently within the Feasibility Phase of planning and specific details related to the scope of work (SOW) are incomplete at this time. However, the Tentatively Selected Plan (TSP) has been defined as the Nonstructural Alternative and the FWEEP which is outlined in Attachment 1 (Enclosed). The TSP provides the basis for the area of potential effect (APE) and is defined by the structures located within the 500-year floodplain (see Figure 1 in Attachment 1). Currently, USACE proposes the following level of effort (LOE) to identify historic properties within the APE:

1. A background review of known historic structures and historic properties within the APE.
2. Develop and award a contract to evaluate the National Register of Historic Places (NRHP) significance for the identified structures eligible for nonstructural measures.
3. Provide the final Cultural Historic Report to the Cherokee Nation for review and comment.
4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to the Cherokee Nation for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ann Howard", is written over a faint, circular official stamp.

Ann Howard
Chief, Environmental Resources Section



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

March 15, 2024

Planning, Programs and
Project Management Division

Katelyn Lucas, THPO
Delaware Nation
P.O. Box 825
Anadarko, OK 73005

Dear Ms. Lucas:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEPP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

This Undertaking is currently within the Feasibility Phase of planning and specific details related to the scope of work (SOW) are incomplete at this time. However, the Tentatively Selected Plan (TSP) has been defined as the Nonstructural Alternative and the FWEPP which is outlined in Attachment 1 (Enclosed). The TSP provides the basis for the area of potential effect (APE) and is defined by the structures located within the 500-year floodplain (see Figure 1 in Attachment 1). Currently, USACE proposes the following level of effort (LOE) to identify historic properties within the APE:

1. A background review of known historic structures and historic properties within the APE.
2. Develop and award a contract to evaluate the National Register of Historic Places (NRHP) significance for the identified structures eligible for nonstructural measures.
3. Provide the final Cultural Historic Report to the Delaware Nation for review and comment.
4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to the Delaware Nation for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ann Howard". The signature is fluid and cursive, with the first name "Ann" and last name "Howard" clearly distinguishable.

Ann Howard
Chief, Environmental Resources Section



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

March 15, 2024

Planning, Programs and
Project Management Division

Susan Bachor, THPO
Delaware Tribe of Indians Oklahoma
1929 E. 6th Street
Duluth MN 55812

Dear Ms. Bachor:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

This Undertaking is currently within the Feasibility Phase of planning and specific details related to the scope of work (SOW) are incomplete at this time. However, the Tentatively Selected Plan (TSP) has been defined as the Nonstructural Alternative and the FWEEP which is outlined in Attachment 1 (Enclosed). The TSP provides the basis for the area of potential effect (APE) and is defined by the structures located within the 500-year floodplain (see Figure 1 in Attachment 1). Currently, USACE proposes the following level of effort (LOE) to identify historic properties within the APE:

1. A background review of known historic structures and historic properties within the APE.
2. Develop and award a contract to evaluate the National Register of Historic Places (NRHP) significance for the identified structures eligible for nonstructural measures.
3. Provide the final Cultural Historic Report to the Delaware Tribe of Indians for review and comment.
4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to the Delaware Tribe of Indians for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ann Howard". The signature is fluid and cursive, with the first name "Ann" and last name "Howard" clearly distinguishable.

Ann Howard
Chief, Environmental Resources Section



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

March 15, 2024

Planning, Programs and
Project Management Division

Russell Townsend, THPO
Eastern Band of Cherokee Indians
2877 Governors Island Rd
Bryson City, NC 28713

Dear Mr. Townsend:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEPP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

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Sincerely,

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Ann Howard
Chief, Environmental Resources Section



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

March 15, 2024

Planning, Programs and
Project Management Division

Paul Barton, THPO
Eastern Shawnee Tribe of Oklahoma
12755 S 705 Rd
Wyandotte, OK 74370

Dear Mr. Barton:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

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2. Develop and award a contract to evaluate the National Register of Historic Places (NRHP) significance for the identified structures eligible for nonstructural measures.
3. Provide the final Cultural Historic Report to the Eastern Shawnee Tribe of Oklahoma for review and comment.
4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to the Eastern Shawnee Tribe of Oklahoma for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

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Ann Howard
Chief, Environmental Resources Section



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

April 29, 2024

Planning, Programs and
Project Management Division

Devon Frazier, THPO
Absentee-Shawnee Tribe of Indians
2025 S. Gordon Cooper Drive
Shawnee, Oklahoma 74801-9381

Dear Ms. Frazier:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose potential structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan.

This project is located within the Kentucky River Basin and more specifically where the three forks (North, Middle, and South) of the Kentucky River converge and form the main stem (Figure 1). Because of this location, USACE is interested in identifying any Traditional Cultural Properties, Historic Properties of Religious or Cultural Significance to Indian Tribes, Sacred Sites, or any other Indigenous Knowledge related to this region are located within or adjacent to the project area (Figure 2).

USACE would appreciate any information or feedback that the Absentee-Shawnee Tribe is willing to share within thirty (30) days of receiving this letter. If you have any questions, recommendations, or would like to discuss this request in further detail, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink, reading "Jennifer M. Guffey", is positioned above the printed name.

Jennifer M. Guffey
Archaeologist and Tribal Liaison

Enclosure: Project Location Maps



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

April 29, 2024

Planning, Programs and
Project Management Division

Elizabeth Toombs, THPO
Cherokee Nation
P.O. Box 948
Tahlequah, OK 74465

Dear Ms. Toombs:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose potential structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan.

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USACE would appreciate any information or feedback that the Cherokee Nation is willing to share within thirty (30) days of receiving this letter. If you have any questions, recommendations, or would like to discuss this request in further detail, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink, reading "Jennifer M. Guffey", is positioned above the printed name and title.

Jennifer M. Guffey
Archaeologist and Tribal Liaison

Enclosure: Project Location Maps



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

March 15, 2024

Planning, Programs and
Project Management Division

Dr. Andrea Hunter, THPO
Osage Nation
627 Grandview Avenue
Pawhuska, OK 74056

Dear Dr. Hunter:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose the structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). This project has the potential to effect historic properties, and therefore is considered an Undertaking necessitating consultation under Section 106 of the National Historic Preservation Act (NHPA).

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4. Conduct a Phase I Archaeological Survey if potentially undisturbed areas are likely to be impacted by the Undertaking. The results of this survey will be provided to the Osage Nation of Indians for review and comment.

USACE is requesting your concurrence with the proposed preliminary APE and LOE described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

A handwritten signature in blue ink that reads "Ann Howard". The signature is written in a cursive style with a large, stylized "A" and "H".

Ann Howard
Chief, Environmental Resources Section



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

April 29, 2024

Planning, Programs and
Project Management Division

Katelyn Lucas, THPO
Delaware Nation
P.O. Box 825
Anadarko, OK 73005

Dear Ms. Lucas:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose potential structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan.

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USACE would appreciate any information or feedback that the Delaware Nation is willing to share within thirty (30) days of receiving this letter. If you have any questions, recommendations, or would like to discuss this request in further detail, please contact Christopher D. Wernick by telephone at (502) 315-6786 or via email at Christopher.d.wernick@usace.army.mil.

Sincerely,

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Jennifer M. Guffey
Archaeologist and Tribal Liaison

Enclosure: Project Location Maps



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

April 29, 2024

Planning, Programs and
Project Management Division

Susan Bachor, THPO
Delaware Tribe of Indians Oklahoma
1929 E. 6th Street
Duluth MN 55812

Dear Ms. Bachor:

The U.S. Army Corps of Engineers, Louisville District (USACE) is conducting a General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose potential structural modifications to properties throughout the City of Beattyville and the development of a Flood Warning & Emergency Evacuation Plan.

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Jennifer M. Guffey
Archaeologist and Tribal Liaison

Enclosure: Project Location Maps



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

April 29, 2024

Planning, Programs and
Project Management Division

Russell Townsend, THPO
Eastern Band of Cherokee Indians
2877 Governors Island Rd
Bryson City, NC 28713

Dear Mr. Townsend:

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Sincerely,

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Jennifer M. Guffey
Archaeologist and Tribal Liaison

Enclosure: Project Location Maps



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

April 29, 2024

Planning, Programs and
Project Management Division

Paul Barton, THPO
Eastern Shawnee Tribe of Oklahoma
12755 S 705 Rd
Wyandotte, OK 74370-3148

Dear Mr. Barton:

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Archaeologist and Tribal Liaison

Enclosure: Project Location Maps

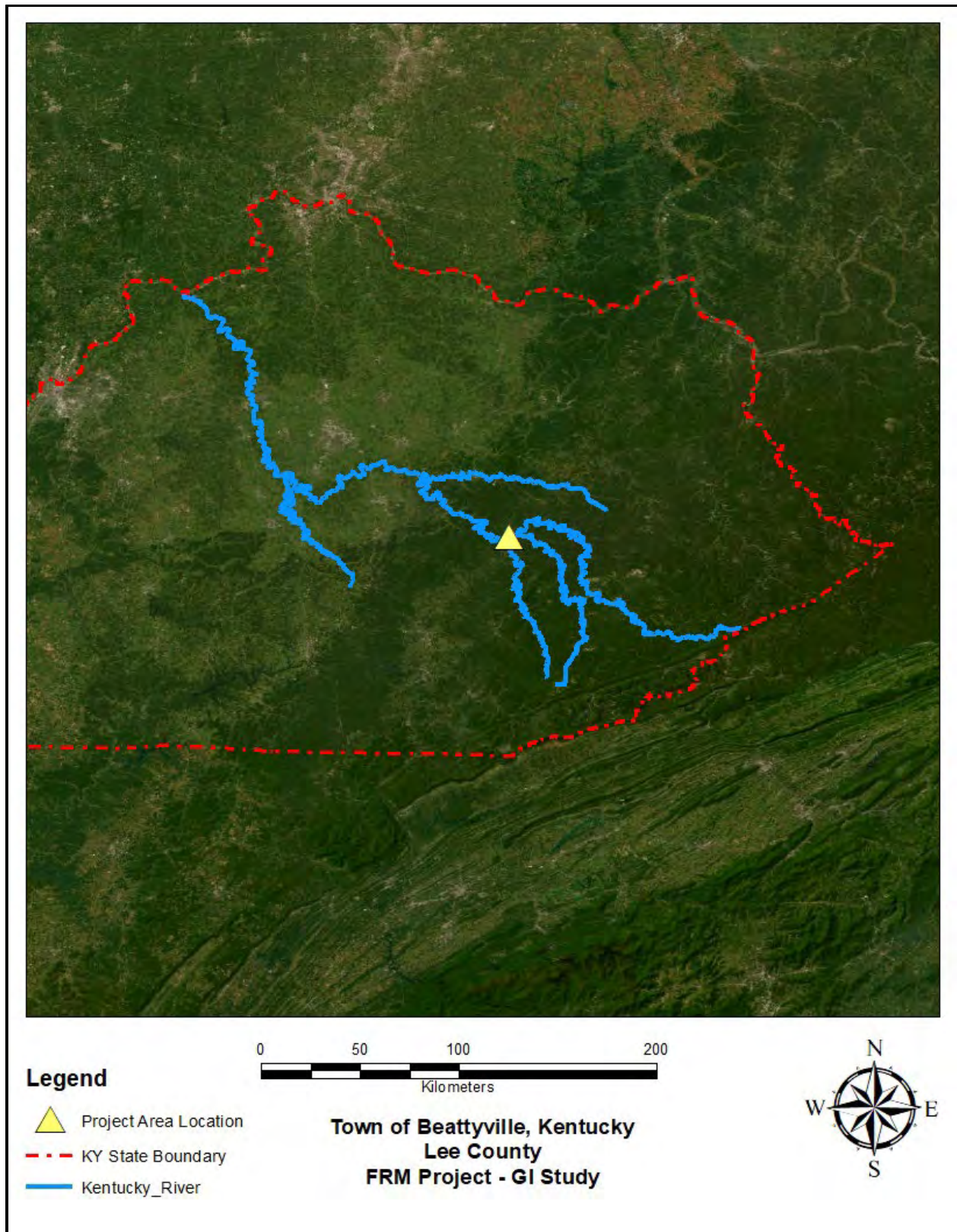


Figure 1: Location of the Beattyville Flood Risk Management Project (FRM) Project in relation to the Kentucky River.

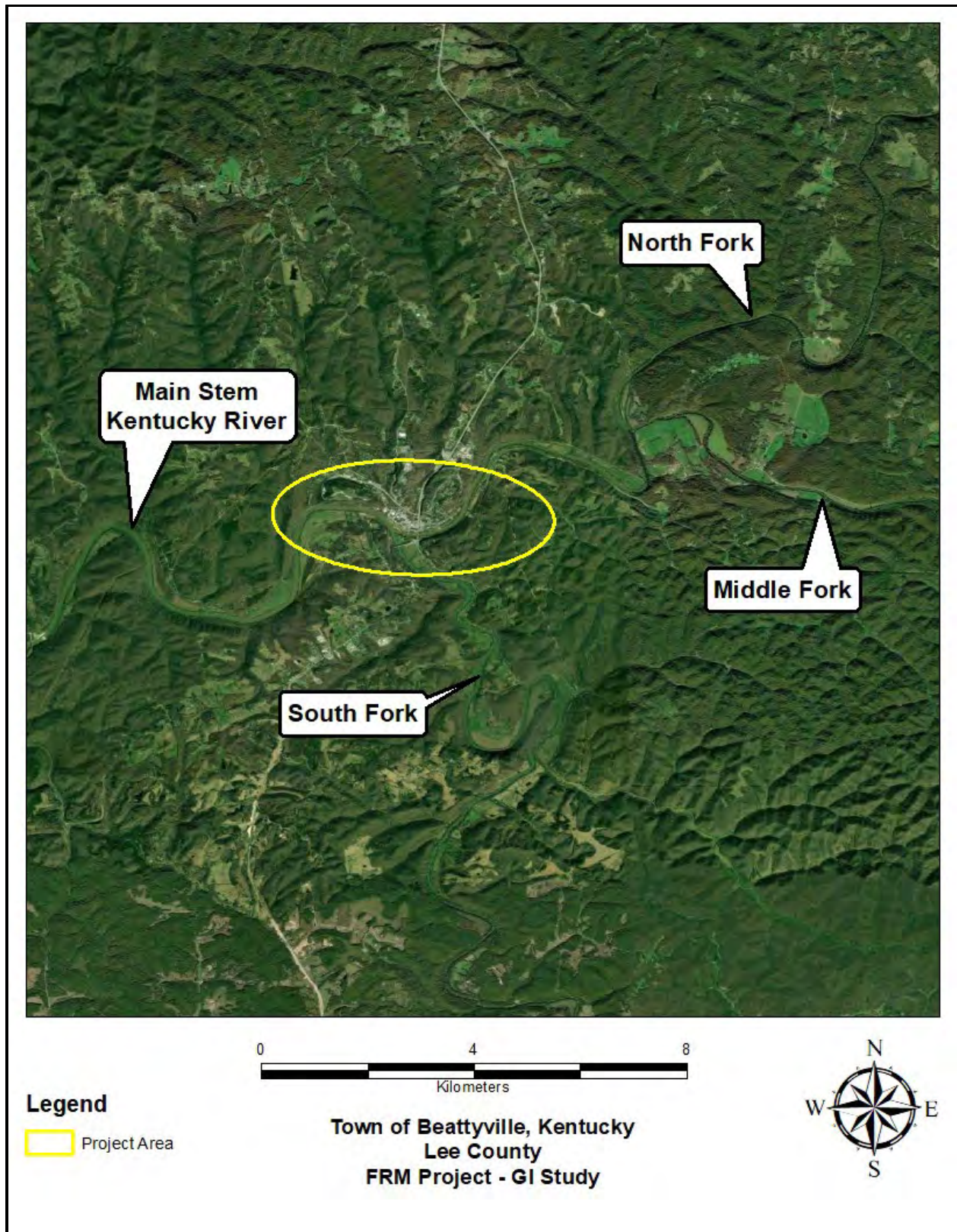


Figure 2: Project Area for the Beattyville FRM Project in relation to the Kentucky River. NOTE: Project area is NOT the same as the Area of Potential Effects.



ANDY BESHEAR
GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE

LINDY CASEBIER
SECRETARY

JACQUELINE COLEMAN
LT. GOVERNOR

410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

April 15, 2024

Christopher Wernick
USACE, Louisville District
600 Dr. Martin Luther King Jr. Pl.
Louisville, KY 40202
Christopher.D.Wernick@usace.army.mil

RE: USACE-L, Beattyville General Investigation Feasibility Study, Lee County, KY

Dear Mr. Wernick:

Thank you for your submittal of initiation materials for the above-referenced undertaking. We understand the Corps is proposing to evaluate and propose structural modifications throughout the City of Beattyville. This will also include the development of a Flood Warning & Emergency Evacuation Plan (FWEEP). The project is currently in the feasibility phase, but a tentative plan has been selected to include various non-structural alternatives and the FWEEP.

Based on the information provided, our office concurs with the above and below-ground identification measures and preliminary APE. Any above-ground properties within the APE should be evaluated in Cultural Historic, which should be completed by a Secretary of the Interior-qualified Historian or Architectural Historian. Previous disturbance should be evaluated by an SOI-qualified archaeologist to determine whether archaeological investigations are necessary. Any reports, as well as survey forms, should meet our office's report and survey form specifications.

Once completed, the Cultural Historic, any survey forms, and if necessary, the archaeology report should be submitted as separate PDF files to khc.section106@ky.gov. As part of the 106 process, we suggest the Corps reach out to Beattyville Main Street for potential consulting party involvement.

Should you have any questions, please contact Gabrielle Fernandez or Patti Hutchins of my staff at Gabrielle.Fernandez@ky.gov or Patricia.Hutchins@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director and
State Historic Preservation Officer

CP: gf, peh
KHC # 240761



An Equal Opportunity Employer M/F/D



Osage Nation Historic Preservation Office

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Date: April 22, 2024

File No. 2324-6821KY-3

Louisville District, USACE
Christopher Wernick
600 Dr. Martin Luther King Jr. Place
Louisville, KY 40201
Email: christopher.d.wernick@usace.army.mil

RE: USACE, Louisville District, Beattyville General Investigation Study, Lee County, Kentucky

SENT VIA EMAIL

Dear Mr. Wernick,

The Osage Nation has received notification and accompanying information for the proposed project listed as USACE, Louisville District, Beattyville General Investigation Study, Lee County, Kentucky. **The Osage Nation Historic Preservation Office requests a copy of the cultural resource survey report for review and comment.**

In accordance with the National Historic Preservation Act, (NHPA) [54 U.S.C. § 300101 et seq.] 1966, undertakings subject to the review process are referred to in 54 U.S.C. § 302706 (a), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. **The Osage Nation anticipates reviewing and commenting on the survey report for the USACE, Louisville District, Beattyville General Investigation Study, Lee County, Kentucky.**

Should you have any questions or need any additional information please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Andrea A. Hunter, Ph.D.
Director, Tribal Historic Preservation Officer

Benjamin Bressoud, MSc
Archaeologist

Draft - Kentucky River, Beattyville, Kentucky Flood Risk Management
Project Feasibility Study Appendix B Environmental

From: [Carissa Speck](#)
To: [Wernick, Christopher D CIV USARMY CELRL \(USA\)](#)
Subject: [Non-DoD Source] RE: Beattyville FRM Project - Indigenous Knowledge for Lee County, Kentucky
Date: Monday, May 6, 2024 1:14:25 PM

We do not claim Lee County as an area of interest therefore we will defer. Thank you.

Wanishi,

Carissa Speck
Delaware Nation
Historic Preservation Director
405-247-2448 Ext. 1403
cspeck@delawarenation-nsn.gov



From: Wernick, Christopher D CIV USARMY CELRL (USA) <Christopher.D.Wernick@usace.army.mil>
Sent: Monday, May 6, 2024 8:04 AM
To: Carissa Speck <cspeck@delawarenation-nsn.gov>
Subject: Beattyville FRM Project - Indigenous Knowledge for Lee County, Kentucky

Dear Ms. Speck

Please find the attached letter requesting any information regarding indigenous knowledge of the Beattyville, Lee County Kentucky area. We are intending to capture a more complete history of the area/region and would sincerely appreciate any historical/Indigenous Knowledge of the area that the Delaware Nation is willing to share.

Respectfully,
Chris

Christopher D. Wernick, PMP
Archaeologist/Project Manager
USACE - Louisville District
600 Dr. Martin Luther King Place
Louisville, KY 40201
502-315-6786 (office)

CONFIDENTIALITY NOTE:

This e-mail (including attachments) may be privileged and is confidential information covered by the Electronic Communications Privacy Act 18 U.S.C. 2510-2521 and any other applicable law, and is intended only for the use of the individual or entity named herein. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any retention, dissemination, distribution or copying of this communication is strictly prohibited. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system in to which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by Delaware Nation or the author hereof in any way from its use. If you have received this communication in error, please immediately notify us by return e-mail. Thank you.



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

December 20, 2024

Planning, Programs, and
Project Management Division

Mr. Craig Potts
Executive Director and State Historic Preservation Officer
410 High Street
Frankfort, Kentucky 40601

Dear Mr. Potts:

The U.S. Army Corps of Engineers, Louisville District (USACE) is continuing consultation under Section 106 of the National Historic Preservation Act (NHPA) for the General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose flood risk management measures to properties throughout the City of Beattyville (Figure 1), the development of a Flood Warning & Emergency Evacuation Plan (FWEEP), and the establishment of recreation amenities for the City of Beattyville. This project has the potential to effect historic properties, and therefore is considered an undertaking necessitating consultation under Section 106 of the NHPA. Please find the enclosed archaeological survey report titled *Phase I Archaeological Investigation for the Beattyville Flood Risk Management Project, City of Beattyville, Lee County, KY*.

The Tentatively Selected Plan (TSP) has been defined and includes a nonstructural alternative and the development of a FWEEP. The Area of Potential Effects (APE) consists of the structures and buildings to be floodproofed, raised in place, or acquired, and the area where the recreational amenities will be located (Figure 2). The nonstructural alternative includes fifty-three (n=53) structures in total and is sub-divided by structures identified within the floodway (n=13), structures considered essential to the people of Beattyville (n=7), and historic structures (n=33). Twenty-eight (n=28) of the historic structures are contributing resources in the Beattyville Historic District (SG100010769), and only these 28 will be included in the TSP. For each structure, there is an identified flood-risk management measure (i.e., wet floodproofing, dry floodproofing, raise-in-place, acquirement, etc.) assigned.

A preliminary background review identified 34 historic resources within downtown Beattyville and the surrounding area. Of these 34 resources there are 21 residential single dwelling houses, 7 commercial buildings, 2 banks, 1 elementary school, and 1 railroad facility. All of these structures were listed as unevaluated for the NRHP. Six (n=6) of these 34 structures are included in the TSP as contributing resources to the Beattyville Historic District; the remaining structures will not be affected by the undertaking.

All of the thirteen (n=13) structures located in the floodway will be acquired by the Federal government, which may include being purchased at fair-market value and any structure on the property razed. All of these structures are less than 50 years of age (post 1974) as determined by reviewing historic imagery and Property Value Assessor (PVA) data. These structures include

mobile homes, vacant lots, and unoccupied structures. See Table 1 for the list of structures within the floodway that will be acquired.

Of the seven (n=7) essential structures included in the TSP, five (n=5) have been assigned dry floodproofing measures and two (n=2) have been assigned wet floodproofing measures. Of the five structures assigned dry floodproofing, three (n=3) are less than 50 years old and includes the primary grocery store for Beattyville (Jack's IGA) and the Three Forks Historic Museum. The other two (n=2) essential structures assigned dry floodproofing include the Beattyville Post Office and a Family Dollar Store; both of these structures were constructed in the 1970s (unspecific date). Both the Family Dollar Store and Beattyville Post Office have been extensively remodified since their original construction and therefore are not considered eligible for listing to the NRHP. The two essential structures assigned wet flood proofing includes the Queen of All Saints Church (which is older than 50 years) and the Health Department building which was built in 1982 (less than 50 years old). The Queen of All Saints Church (ca. 1965) is not considered eligible under the Criteria Consideration A: *Religious Properties* because of recent modifications and renovations in the early 2000s. For instance, much of the original cut stone masonry was replaced with running bond red-brick masonry. See Table 1 for the list of structures within the floodway and those considered essential.

The undertaking includes twenty-eight (n=28) contributing resources and four (n=4) non-contributing resources of the Beattyville Historic District (discussed in detail below). Of the 28 contributing resources included in the TSP, twenty-six (n=26) have been assigned wet floodproofing, one (n=1) has been assigned dry floodproofing, and one (n=1) has been assigned raise-in-place. Of the four non-contributing resources included in the TSP, three (n=3) have been assigned dry floodproofing, and one (n=1) will be acquired. See Table 2 for the list of historic structures included in the TSP that are part of the Beattyville Historic District.

The Beattyville Historic District (SG100010769) was listed on the National Register of Historic Places (NRHP) on September 5, 2024, under Criterion A. This district included thirty-seven (n=37) contributing resources and sixteen (n=16) non-contributing resources throughout the downtown area of Beattyville. The district's significance stems from the historic association between the local community to its downtown landscape and retains integrity related to location, setting, materials, design, and association as specified in the NRHP nomination form. In regard to the aspects of integrity related to materials and design, the Beattyville Historic District clearly states that the external characteristics of the contributing resources are what signify the district's significance, and more specifically the use of masonry on the front facades of these structures.

USACE has determined the effects associated with the undertaking will have no adverse effect to the Beattyville Historic District or other above-ground cultural historic resources. For instance, wet floodproofing is limited to interior modifications in order to relocate the structure's mechanicals (i.e., HVAC systems, water heaters, electrical panels, etc.) out of zones that are inundated during flood events. This measure has no exterior modification requirement and therefore will have no effect to the five aspects of integrity listed above. Furthermore, the dry floodproofing and raise-in-place measures can be constrained to require similar materials and design aesthetics to match the existing external characteristics of the structures assigned these measures. If these constraints cannot be adhered to (i.e., not able to match the existing external characteristics for unknown reasons), USACE will recommend wet floodproofing measures instead. Lastly, if any measure is likely to result in adverse effects to either the Beattyville Historic District or any other cultural historic resources, that structure will not be included in the undertaking.

The structures within the floodway (n=13) identified for acquisition are all less than 50 years of age. The essential structures (n=7) will be either dry floodproofed (n=5) or wet floodproofed (n=2). These essential structures include four (n=4) structures less than 50 years of age and three (n=3) structures older than 50 years but considered not eligible for the NRHP due to recent renovations and remodeling. Regardless, these structures will be either wet or dry floodproofed with constraints requiring that any external modifications match the existing external characteristics. In regard to the Beattyville Historic District, twenty-six (n=26) of the twenty-eight (n=28) contributing structures will be wet floodproofed with the remaining two subject to dry floodproofing or raised-in-place with similar constraints described above. The remaining four (n=4) structures included in the undertaking are non-contributing structures to the Beattyville Historic District. The effects associated with wet floodproofing, as well as in combination with the constraints in place for dry floodproofing and raise-in-place, will avoid and minimize any effect that could alter any aspect of integrity necessary for the Beattyville Historic District or other above ground historic property. Lastly, the effects associated with the development of a FWEPP (which includes the development of administrative procedures, flood mapping, management plans, emergency action plans, and the installation of stream gages and warning devices) is minimal and will require no ground disturbing activity or alteration to a physical structure.

Lastly, the enclosed archaeological report identifies no archaeological resources within the project APE and documents extensive previous disturbance in the area where recreational amenities will be constructed. This disturbance suggests a low likelihood of intact archaeological materials. Therefore, USACE has determined that the undertaking will result with no adverse effects to historic properties.

USACE is requesting your concurrence with the proposed determination of No Adverse Effect to Historic Properties as described in 36 CFR 800.5(d)(1) described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at Christopher.d.wernick@usace.army.mil, or by phone at (502) 315-6786.

Sincerely,

Ann
Howard

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Ann Howard
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Ann Howard
Chief, Environmental Resources Section

Enclosure

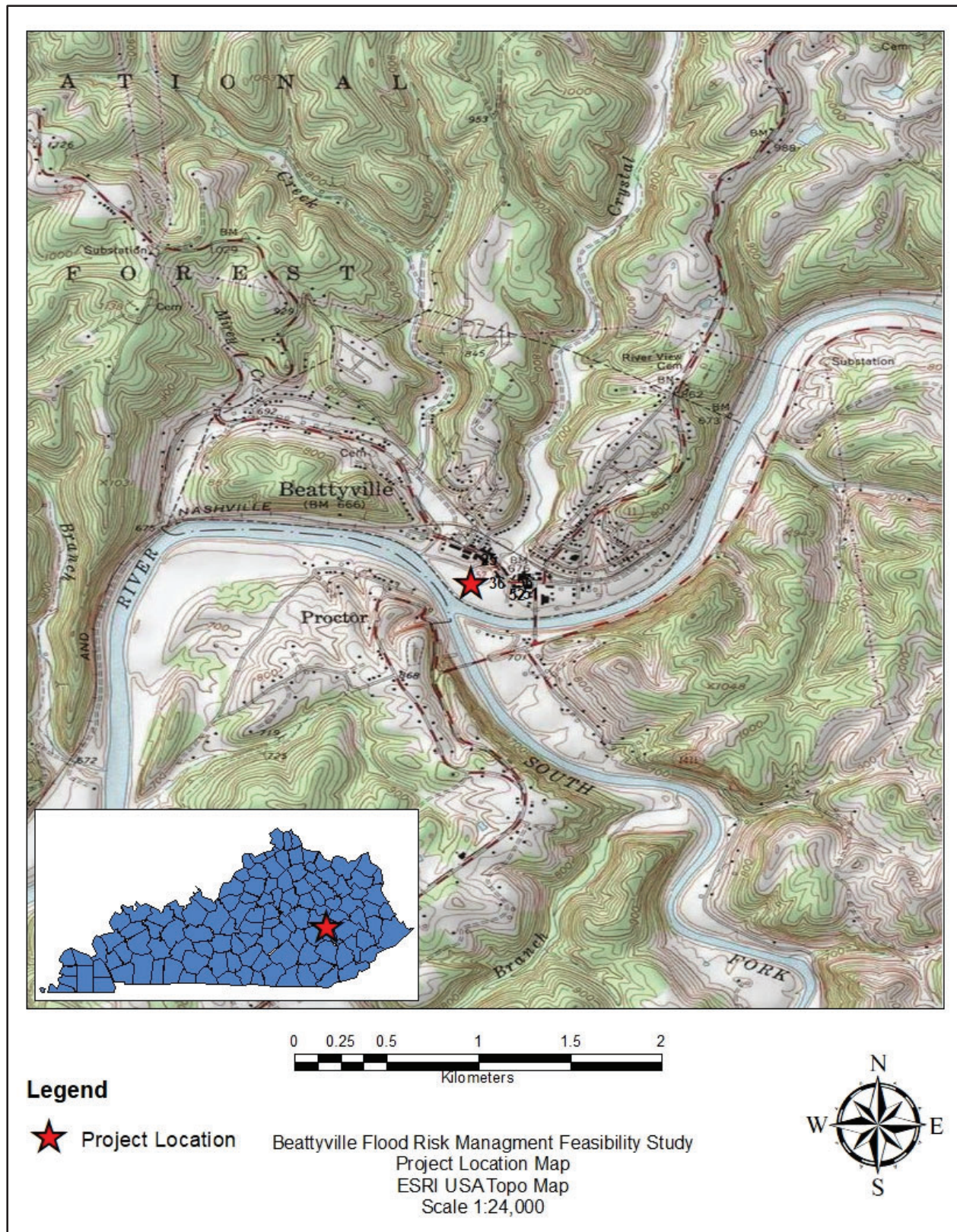


Figure 1: Project Location Map showing Beattyville and the structures included in the TSP. NOTE: WFP is wet floodproofing and DFP is dry floodproofing.

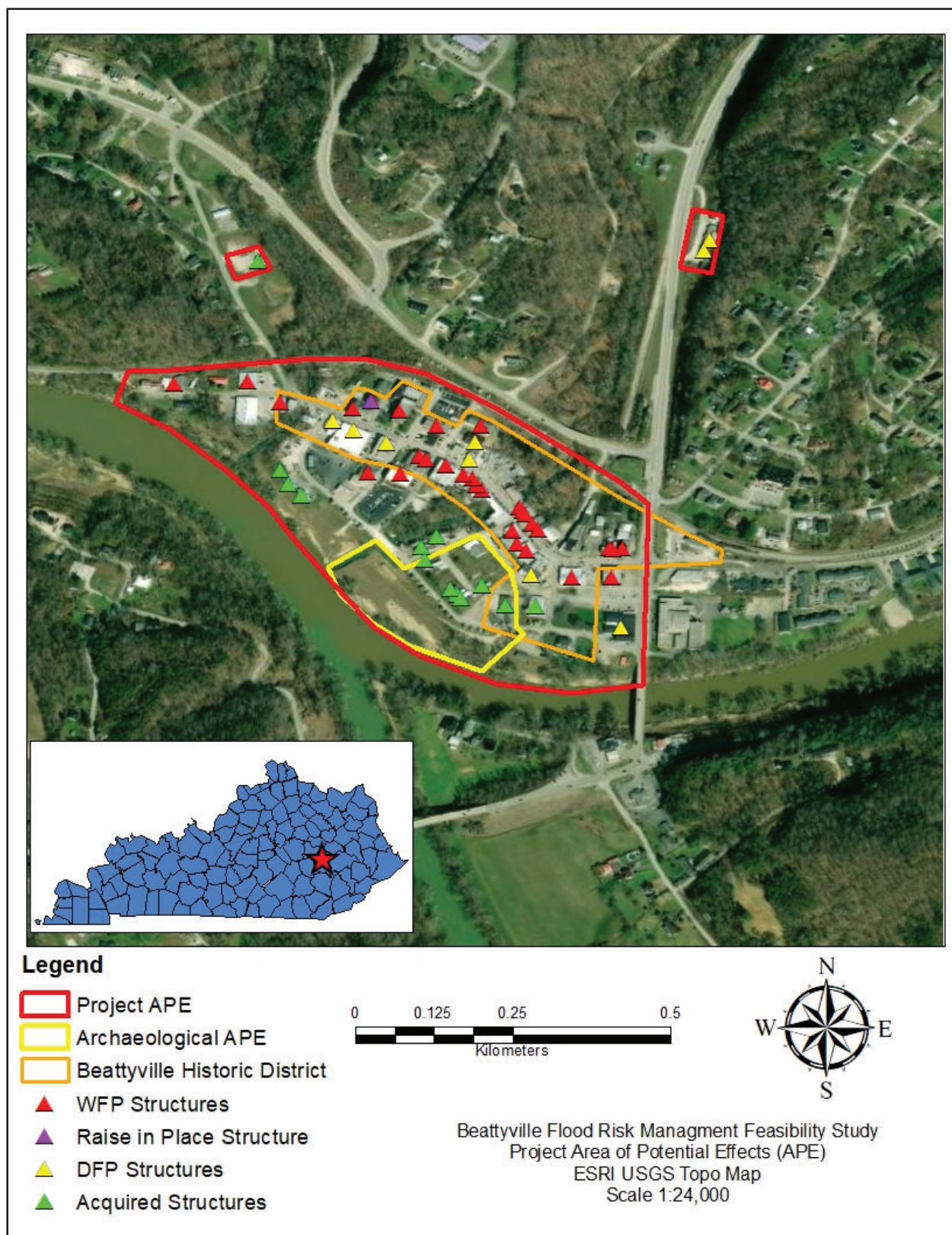


Figure 2: Beattyville Historic District and the structures included in the TSP.

Table 1: Structures included in the TSP but not within the Beattyville Historic District.

Action	Designation	Address	Description	Date
Acquire	Floodway	343 River Dr.	BPs Small Engine Repair	Post 1977
Acquire	Floodway	115 River Rd	Henrietta's Place / Hair Salon	Post-1995
Acquire	Floodway		River Dr	Post 1995
Acquire	Floodway	68 Begley Steet	Begley St - Mobile Home	2021
Acquire	Floodway	68 Begley Steet	Begley St - Mobile Home	2021
Acquire	Floodway	68 Begley Steet	Begley St - Mobile Home	2021
Acquire	Floodway	110 River Drive	110 River Dr - unoccupied pharmacy	1980
Acquire	Floodway	500 West Main Street	500 West Main St - metal siding warehouse/storage	Post-1977
Acquire	Floodway	224 River Road	H&H Tires	Post 1977
Acquire	Floodway	68 Begley Steet	Begley St - Mobile Home	2021
Acquire	Floodway	68 Begley Steet	Begley St -	2021
Acquire	Floodway	68 Begley Steet	Begley St - Mobile Home	2021
DFP	Essential	285 West Main Street	Jack's IGA - Grocery Store	2008
DFP	Essential	301 West Main St	US Post Office, Brick	1970s
DFP	Essential	161 Broadway	Family Dollar	1970s
DFP	Essential	1625 KY-52	Historical Center Rd - Three Forks Historical Center (storage shed)	Post 1977
DFP	Essential	1625 KY-52	Historical Center Rd - Three Forks Historical Center (museum)	Post 1977
WFP	Essential	88 Railroad Street	Queen of All Saints Church	Pre-1977
WFP	Essential	48 Center Street	Health Department (medical Center)	1982

NOTE 1: DFP stands for Dy Flood Proofing

NOTE 2: WFP stand for Wet Flood Proofing

Table 2: Structures included in the TSP and within the Beattyville Historic District (BHD).

BHD No.	Action	Site No.	Address	Description
1	WFP	LEB 109	28 Railroad Street	Beattyville City Hall
2	WFP	LEB 110	290 Main Street	Charles Berry Jackson Building
4	Elevate/WFP	LEB 111	21 Walnut Street	Adams Residence
5	WFP	LEB 14	256 Main Street	Lee County Courthouse
9	WFP	LEB 101	108 Center Street	Newnam Funeral Home
10	WFP	LEB 102	145 Locust Street	Beattyville Christian Church
11*	DFP	LEB 115	130 Locust Street	Beattyville Church Activity Center
13	DFP	LEB 117	186 and 190 Main Street	Tom Hollon Law Office
16	WFP	LEB 120	130 Main Street	Ray Shuler Building
17	WFP	LEB 121	124 Main Street	Catholic Thrift Store
18	WFP	LEB 122	118 Main Street	Ray Shuler Building
20	WFP	LEB 124	106 Main Street	Lee County Farm Bureau Building
21	WFP	LEB 125	100 Main Street	Lucas Building
24	WFP	LEB 128	30, 32,34 Main Street	Sharon Bush Building
25	WFP	LEB 129	28 Main Street	Army Surplus Building
26	WFP	LEB 130	22 Main Street	McGuire Memorial Presbyterian Church
31	WFP	LEB 133	25, 29, 33 Main Street	Kentucky Food Storage Building
32	WFP	LEB 134	59 Main Street	Huda Jones - Boone Jones Building
34*	Acquire	LEB 135	23 Lumber Street	The Gumm building
35*	DFP	LEB 136	79 Main Street	Valero Gas Station
36	WFP	LEB 137	87,89, 91 Main Street	Masonic Lodge of Proctor #213
37	WFP	LEB 138	101 Main Street	Barry Jackson Storage Building
38	WFP	LEB 139	105,109, 113 Main Street	Hargas Ross Building
40	WFP	LEB 103	169 Main Street	Beattyville Florist and Burgess Building
41	WFP	LEB 104	167 Main Street	Cox Building, old Burgess Building
42	WFP	LEB 105	187 Main Street	Don Begley Auto Shop
43	WFP	LEB 106	203 Main Street	Congleton Hardware Building
44	WFP	LEB 3	217 Main Street	Peoples Exchange Bank
45	WFP	LEB 108	223 Main Street	Peoples Exchange Bank - Movie Theatre
48	WFP	LEB 143	45 Center Street	Lee County Fiscal Court - THE HUB
49*	DFP	LEB 263	263 Main Street	Rose Brothers Dept Store
52	WFP	LEB 29	343 Main Street	Deal Building

NOTE 1: "*" identified as a non-contributing resource to the Beattyville Historic District.

NOTE 2: BHD stands for Beattyville Historic District

NOTE 3: DFP stands for Dy Flood Proofing

NOTE 4: WFP stand for Wet Flood Proofing



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

December 30, 2024

Planning, Programs, and
Project Management Division

Dr. Andrea Hunter, THPO
Osage Nation
627 Grandview Avenue
Pawhuska, OK 74056

Dear Dr. Hunter:

The U.S. Army Corps of Engineers, Louisville District (USACE) is continuing consultation under Section 106 of the National Historic Preservation Act (NHPA) for the General Investigation Feasibility Study with the City of Beattyville, Lee County, Kentucky related to flood risk management authorized by Section 6 of the Flood Control Act of 1939, PL 76-396 and under Section 105(a) of the Water Resources Development Act of 1986, PL 99-662, as amended (33 U.S.C. 2215(a)). This study will evaluate and propose flood risk management measures to properties throughout the City of Beattyville (Figure 1), the development of a Flood Warning & Emergency Evacuation Plan (FWEPP), and the establishment of recreation amenities for the City of Beattyville. This project has the potential to effect historic properties, and therefore is considered an undertaking necessitating consultation under Section 106 of the NHPA. Please find the enclosed archaeological survey report titled *Phase I Archaeological Investigation for the Beattyville Flood Risk Management Project, City of Beattyville, Lee County, KY*.

The Tentatively Selected Plan (TSP) has been defined and includes a nonstructural alternative and the development of a FWEPP. The Area of Potential Effects (APE) consists of the structures and buildings to be floodproofed, raised in place, or acquired, and the area where the recreational amenities will be located (Figure 2). The nonstructural alternative includes fifty-three (n=53) structures in total and is sub-divided by structures identified within the floodway (n=13), structures considered essential to the people of Beattyville (n=7), and historic structures (n=33). Twenty-eight (n=28) of the historic structures are contributing resources in the Beattyville Historic District (SG100010769), and only these 28 will be included in the TSP. For each structure, there is an identified flood-risk management measure (i.e., wet floodproofing, dry floodproofing, raise-in-place, acquirement, etc.) assigned.

A preliminary background review identified 34 historic resources within downtown Beattyville and the surrounding area. Of these 34 resources there are 21 residential single dwelling houses, 7 commercial buildings, 2 banks, 1 elementary school, and 1 railroad facility. All of these structures were listed as unevaluated for the NRHP. Six (n=6) of these 34 structures are included in the TSP as contributing resources to the Beattyville Historic District; the remaining structures will not be affected by the undertaking.

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USACE is requesting your concurrence with the proposed determination of No Adverse Effect to Historic Properties as described in 36 CFR 800.5(d)(1) described above within thirty (30) days of receiving this letter. If you have any questions or recommendations, please contact Christopher D. Wernick by telephone at Christopher.d.wernick@usace.army.mil, or by phone at (502) 315-6786.

Sincerely,

GUFFEY.JENNIFER.
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Jennifer Guffey
Archaeologist and Tribal Liaison
Environmental Resources Section

Enclosure

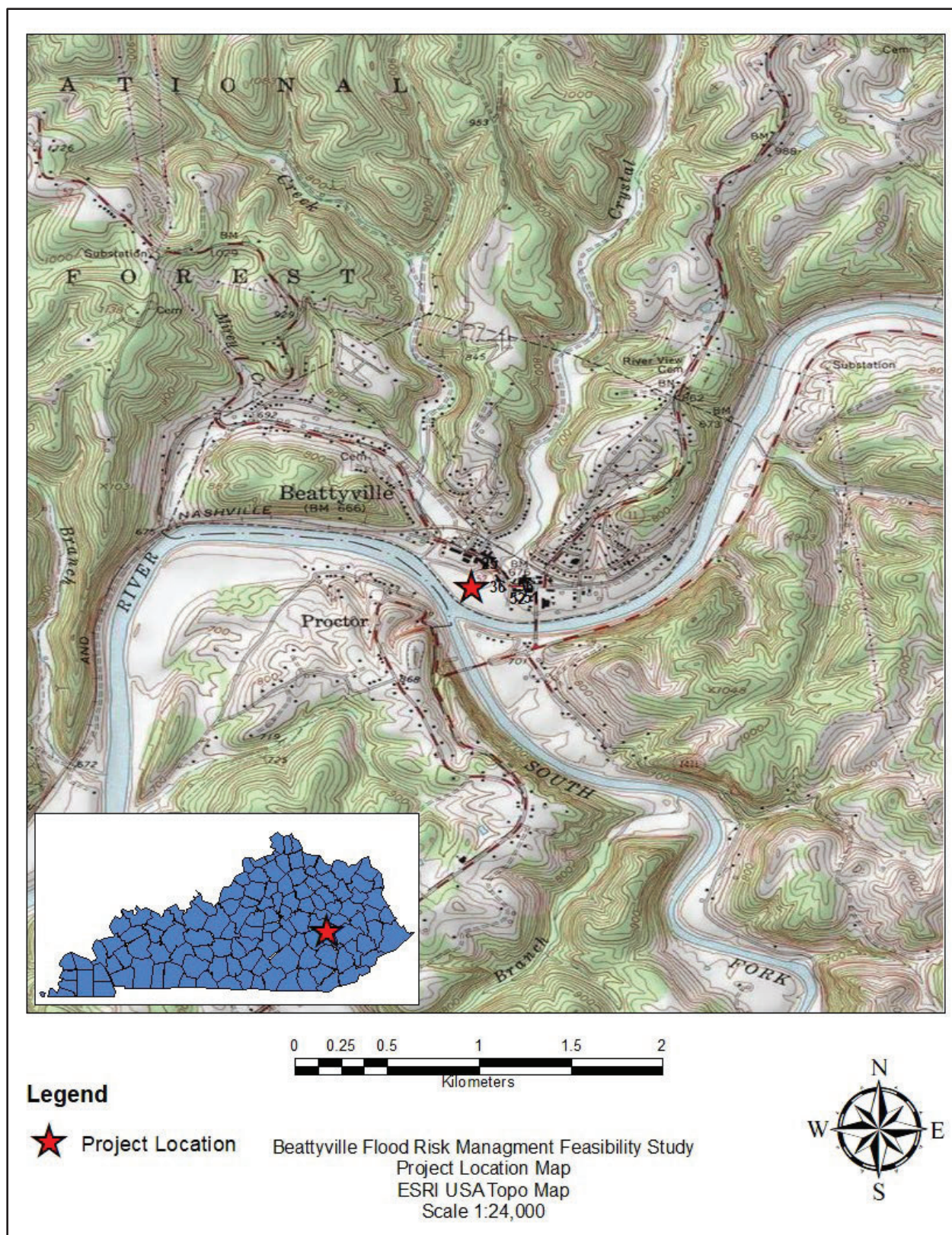


Figure 1: Project Location Map showing Beattyville and the structures included in the TSP.
 NOTE: WFP is wet floodproofing and DFP is dry floodproofing.

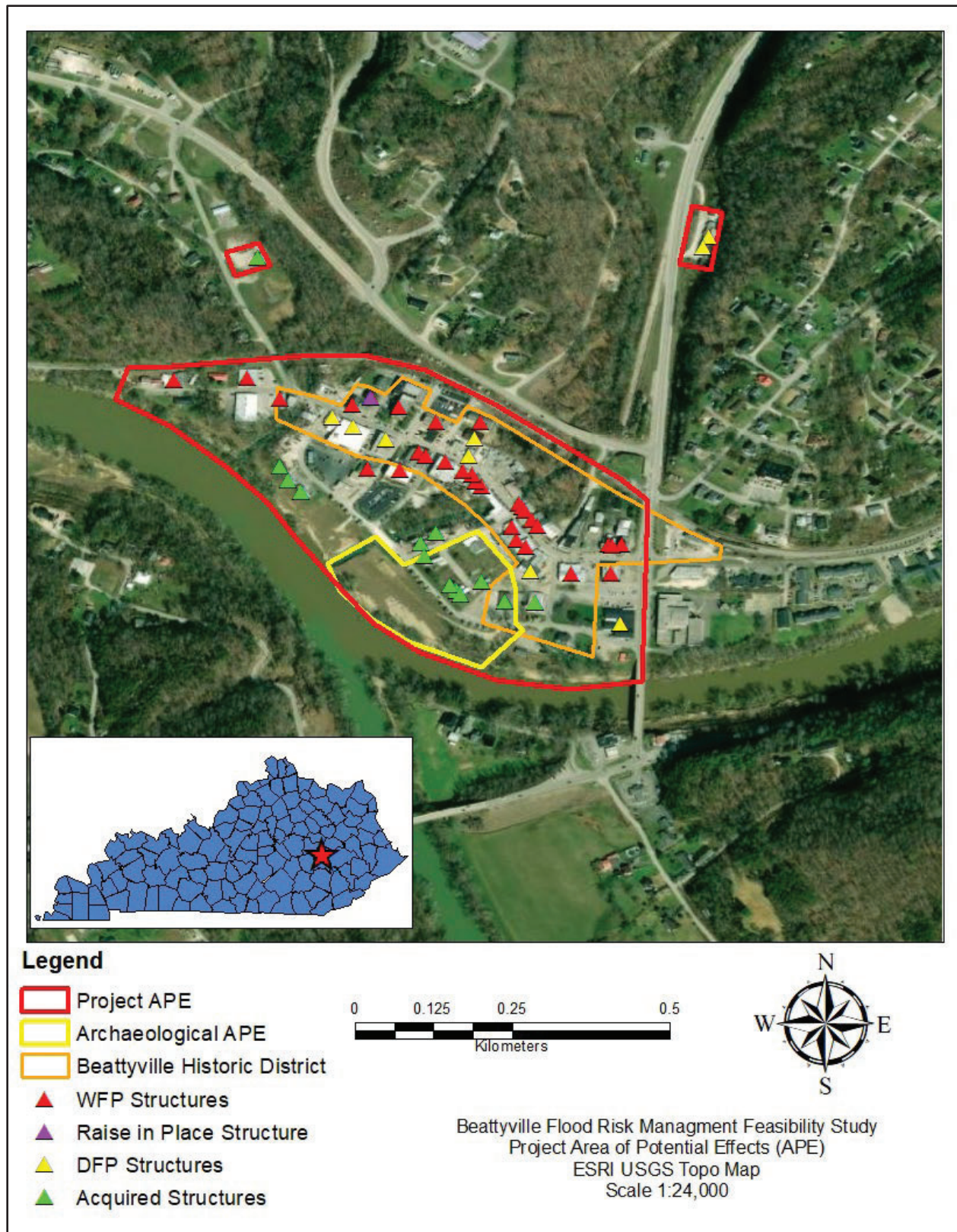


Figure 2: Beattyville Historic District and the structures included in the TSP.

Table 1: Structures included in the TSP but not within the Beattyville Historic District.

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Acquire	Floodway	68 Begley Steet	Begley St - Mobile Home	2021
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DFP	Essential	1625 KY-52	Historical Center Rd - Three Forks Historical Center (storage shed)	Post 1977
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25	WFP	LEB 129	28 Main Street	Army Surplus Building
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32	WFP	LEB 134	59 Main Street	Huda Jones - Boone Jones Building
34*	Acquire	LEB 135	23 Lumber Street	The Gumm building
35*	DFP	LEB 136	79 Main Street	Valero Gas Station
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43	WFP	LEB 106	203 Main Street	Congleton Hardware Building
44	WFP	LEB 3	217 Main Street	Peoples Exchange Bank
45	WFP	LEB 108	223 Main Street	Peoples Exchange Bank - Movie Theatre
48	WFP	LEB 143	45 Center Street	Lee County Fiscal Court - THE HUB
49*	DFP	LEB 263	263 Main Street	Rose Brothers Dept Store
52	WFP	LEB 29	343 Main Street	Deal Building

NOTE 1: "*" identified as a non-contributing resource to the Beattyville Historic District.

NOTE 2: BHD stands for Beattyville Historic District

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ANDY BESHEAR
GOVERNOR

TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL
THE STATE HISTORIC PRESERVATION OFFICE

LINDY CASEBIER
SECRETARY

JACQUELINE COLEMAN
LT. GOVERNOR

410 HIGH STREET
FRANKFORT, KENTUCKY 40601
(502) 564-7005
www.heritage.ky.gov

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC PRESERVATION OFFICER

January 15, 2025

Christopher D. Wernick, PMP
Archaeologist/Project Manager
USACE, Louisville District
600 Dr. Martin Luther King Jr. Pl.
Louisville, KY 40201
Christopher.d.Wernick@usace.army.mil

RE: USACE-L, Beattyville Flood Risk Management Project, Lee County, Kentucky

Dear Mr. Wernick,

Thank you for a submittal of a determination of effects, cultural resources background review, and plans for the above-referenced undertaking. We understand the United States Army Corps of Engineers, Louisville District (USACE-L) is continuing consultation with our office regarding the proposed flood risk management measures to properties throughout the city of Beattyville in Lee County.

USACE-L archaeologists conducted an archaeological background review of the 9-acre area of potential effects (APE) for direct ground disturbance. No previously recorded archaeology sites are within or adjacent to the APE and substantial disturbance is evident on historic maps. We concur that no archaeological investigation is necessary for this undertaking.

KHC site check results indicated there is one previously recorded National Register of Historic Places (NRHP) district located within the Area of Potential Effect (APE), the Beattyville Historic District (SG100010769). Within this historic district, there are a total of thirty-two resources (28 contributing, 4 non-contributing) that are slated for flood risk management measures. Twenty-six of the twenty-eight contributing resources which include LEB-109, Beattyville City Hall; LEB-110, Charles Berry Jackson Building; LEB-14, Lee County Courthouse; LEB-101, Newnam Funeral Home; LEB-102, Beattyville Christian Church; LEB-120, Ray Shuler Building; LEB-121, Catholic Thrift Store; LEB-122, Ray Shuler Building; LEB-124, Lee County Farm Bureau Building; LEB-125, Lucas Building; LEB-128, Sharon Bush Building; LEB-129, Army Surplus Building; LEB-130, McGuire Memorial Presbyterian Church; LEB-133, Kentucky Food Storage Building; LEB-134, Huda Jones-Boone Jones Building; LEB-137, Masonic Lodge of Proctor #213; LEB-138, Barry Jackson Storage Building; LEB-139, Hargas Ross Building; LEB-103, Beattyville Florist and Bluegrass Building; LEB-104, Cox Building; LEB-105, Don Begley Auto Shop; LEB-106, Congleton Hardware Building; LEB-3, Peoples Exchange Bank; LEB-108 Peoples Exchange Bank-



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Movie Theater; LEB-143, Lee County Fiscal Court; and LEB-29, Deal Building, will have wet floodproofing (internal measures only). The other two contributing resources, LEB-111 (Adams Residence) and LEB-117 (Tom Hollon Law Office), will be subject to lift-in-place/wet floodproofing and dry floodproofing, respectively. Specifically, LEB-111 is recommended as lift-in-place but if that would result in an adverse effect to the resource then a wet floodproofing measure would be used instead. For LEB-117, exterior work will require similar materials and design aesthetics to match the existing external characteristics of the structure. If any measure is likely to result in an adverse effect, that structure will not be included in the undertaking.

There are four non-contributing resources in the Beattyville Historic District which are also subject to the flood risk management measures of this undertaking. LEB-115, the Beattyville Church Activity Center, LEB-136, the Valero Gas Station, and LEB-263, the Rose Brothers Department Store will all be subject to dry floodproofing measures while LEB-135, the Gumm Building will be acquired. The constraints listed above will also be in place for these non-contributing resources. Lastly, the effects associated with the development of a Flood Warning and Emergency Evacuation Plan (FWEPP) would not involve any ground disturbance or alteration to any structure.

Based on our review, the flood risk management measures delineated above, for all resources (both contributing and non-contributing) in the Beattyville Historic District, will avoid or minimize any impacts to the integrity of the individual resources and the historic district as a whole. The integrity of these historic resources would not be compromised as a result of this project and would remain intact.

Our office concurs with your determination of **No Adverse Effect** to historic properties for this undertaking.

If you have any questions, please contact Kimberly Busby or Patti Hutchins of my staff at kimberly.busby@ky.gov or patricia.hutchins@ky.gov.

Sincerely,



Craig Potts
Executive Director and
State Historic Preservation Officer

KHC# 242784

CP: kb, peh



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From: [Busby, Kimberly \(Heritage Council\)](#)
To: [Wernick, Christopher D CIV USARMY CELRL \(USA\)](#); [Hutchins, Patricia \(Heritage Council\)](#)
Cc: [Konkol, Nicole N \(Heritage Council\)](#)
Subject: [Non-DoD Source] RE: Beattyville Flood Risk Management Project - One additional structure added to the inventory
Date: Wednesday, March 19, 2025 8:36:26 AM
Attachments: [image001.png](#)

Chris,

Good morning. If you would submit an addendum letter via Inherit, we can document the additional structure to the previous inventory. As you mentioned, it will not change the overall determination of No Adverse Effect to historic properties for this undertaking. We will then issue a response letter confirming this determination. Thank you.

Best,
Kim

Kimberly S. Busby, Ph.D.
Transportation Historic Preservation Coordinator
Kentucky Heritage Council
410 High Street
Frankfort, KY 40601

Moving forward please submit all Section 106 documentation to our online portal, [INHERIT](#) that is live on our webpage now. **Beginning February 1, 2025, the KHC.Section106@ky.gov email address will no longer be monitored.**

Useful links for preliminary records reviews are provided below:
Preliminary Records Review for Above Ground Resources: <https://heritage.ky.gov/historic-places/resources-survey/prelim/Pages/default.aspx>

Preliminary Records Review for Archaeological Resources:
<https://anthropology.as.uky.edu/recorded-archaeological-sites>

-

Please note that we are short staffed and some reviews may take longer than 30 days.



From: Wernick, Christopher D CIV USARMY CELRL (USA) <Christopher.D.Wernick@usace.army.mil>
Sent: Tuesday, March 18, 2025 3:41 PM
To: Busby, Kimberly (Heritage Council) <kimberly.busby@ky.gov>; Hutchins, Patricia (Heritage Council) <patricia.hutchins@ky.gov>
Cc: Konkol, Nicole N (Heritage Council) <nicole.konkol@ky.gov>

Subject: Beattyville Flood Risk Management Project - One additional structure added to the inventory

****CAUTION** PDF attachments may contain links to malicious sites. Please contact the COT Service Desk ServiceCorrespondence@ky.gov for any assistance.**

Good afternoon Ms. Busby and Ms. Hutchins,

We recently coordinated on the Beattyville Flood Risk Management Project (KHC Ref No. 242784). During this coordination, we were consulting on a total of 53 structure, 32 of which were part of the NRHP-listed Beattyville Historic District (SG100010769). After this coordination was completed, one additional structure was identified for floodproofing. This structure (LEB 126; Inventory number 22; CB's Discounts) is a non-contributing structure because it was built in the 1980s. Furthermore, this structure will be wet floodproofed which will only require internal modifications of mechanical components, and no exterior changes will be made. USACE does not believe the addition of this structure will change the overall project's determination of effect of No Adverse Effect to Historic Properties, but I wanted to make sure your office was aware.

Please advise if you would like me to submit a letter through your INHERIT Portal or otherwise how you would want me to proceed if necessary. I have attached your previous letter and a map showing the location of the additional building.

Respectfully,
Chris

Christopher D. Wernick, PMP
Archaeologist/Project Manager
USACE - Louisville District
600 Dr. Martin Luther King Place
Louisville, KY 40201
502-315-6786 (office)
502-918-0277 (mobile)

Section 7: USFWS Section 7 Concurrence Letter



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

October 3, 2024

Steele McFadden
U.S. Army Corps of Engineers
Louisville District
600 Dr. M. L. King Jr. Place, Room 183
Louisville, KY 40202

Subject: FWS 2024-0000310; Beattyville Kentucky Flood Risk Management Plan, Lee County, Kentucky

Dear Steele McFadden:

The U.S. Fish and Wildlife Service's (Service) Kentucky Field Office (KFO) has reviewed the request for concurrence for the above-referenced project received by our office on August 15, 2024. The U.S. Army Corps of Engineers (USACE) is proposing to authorize and implement a flood risk management plan, Alternative 5C, in Lee 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 USACE is proposing a flood risk management plan to reduce flood risk, improve flood response, and increase economic vitality in Beattyville, Kentucky (37.572408°N, - 83.706979°W). The project site encompasses Beattyville which is situated at the confluence of the North and South forks of the Kentucky River. Lee County, Kentucky, serves as the non-federal sponsor (NFS) for this initiative. The Federal Cost Share Agreement (FCSA) was established and signed by the USACE Louisville District on January 3, 2023.

On August 15, 2024, the USACE released the Integrated Feasibility Report and Environmental Assessment, which assesses various alternatives for flood risk reduction. The Tentatively Selected Plan is Alternative 5C, an Incremental Nonstructural Plan. This plan includes the acquisition of properties, dry and wet floodproofing of essential community and historic structures, and raising a structure in place, alongside a Flood Warning Emergency Evacuation Plan (FWEPP). Acquisition of identified structures will be mandatory, whereas dry floodproofing, wet floodproofing, and raising structures will be voluntary. Details of the individual components of the FWEPP will be developed further and presented at the Agency Decision Milestone.

Thirteen structures within the Kentucky River floodway have been earmarked for acquisition. Following acquisition, these structures will be demolished, the soil regraded to restore natural conditions, and the floodway ecosystem will be restored with native plantings, incorporating a recreational aspect. This recreational component will feature a walking trail, a relocated playground, picnic tables, educational signage, and a parking lot. The ecosystem restoration will also include stabilizing the area around the proposed walking trail with various native grasses, plantings, and riparian trees, resulting in approximately 6 acres of new parkland along the Kentucky River.

Additionally, ten commercial structures have been identified for dry floodproofing, thirty commercial structures for wet floodproofing, and one residential structure is planned to be raised in place at the Base Flood Elevation plus 3 feet, totaling 672.2 ft. NAVD88. The project does not propose any direct impacts to streams. Tree removal will be required; however, no trees greater than 3 inches diameter at breast height are proposed to be removed during construction or demolition activities.

Federally Listed Species

The USACE has determined that the proposed project will have “no effect” on the gray bat (*Myotis grisescens*), Virginia big-eared bat (*Corynorhinus townsendii virginianus*), northern long-eared bat (*Myotis septentrionalis*), and Indiana bat (*Myotis sodalis*) due to lack of potential impacts at the project site. There is no requirement to request concurrence with a “no effect” determination; however, the KFO acknowledges this determination and has no additional comments or concerns regarding these species. The USACE has also determined that the proposed project has the potential to affect the Kentucky arrow darter (*Etheostoma spilotum*), Kentucky arrow darter Designated Critical Habitat, clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), longsolid (*Fusconaia subrotunda*), rabbitsfoot (*Quadrula cylindrica cylindrica*), and round hickorynut (*Obovaria subrotunda*).

Kentucky arrow darter and Designated Critical Habitat

The Kentucky arrow darter is known to occur upstream of the project area in tributaries of the South Fork and North Fork of the Kentucky River; however, there are no known records within or downstream of the project area. The proposed actions of Alternate 5C do not include any in-stream activities, and there will be no direct impacts to Silver Creek, which is designated as critical habitat for the Kentucky arrow darter.

To address indirect effects of the proposed action, an erosion control plan will be implemented prior to and during the demolition of the thirteen acquired structures. This plan aims to mitigate erosion and sedimentation in adjacent and downstream waters. Additionally, the removal of these structures from the floodway will decrease the risk of debris, trash, household chemicals, lead-based paint, asbestos, and plastics contaminating nearby surface water. The proposed native plantings within the floodway are expected to provide improved bank resiliency, as well as improve water quality by filtering runoff from Beattyville. Based on lack of impacts to suitable habitat and the implementation of an erosion control plan, we concur with your determination that the proposed action, “may affect, but is not likely to adversely affect” the Kentucky arrow darter and Kentucky arrow darter Designated Critical Habitat.

Mussel species

Federally listed mussel species are known to occur upstream of the project area in the South Fork of the Kentucky River and downstream of the project area in the Kentucky River. The proposed actions of Alternate 5C do not include any in-stream activities, and there will be no direct impacts to Silver Creek, which is designated as critical habitat for the Kentucky arrow darter.

To address indirect effects of the proposed action, an erosion control plan will be implemented prior to and during the demolition of the thirteen acquired structures. This plan aims to mitigate erosion and sedimentation in adjacent and downstream waters. Additionally, the removal of these structures from the floodway will decrease the risk of debris, trash, household chemicals, lead-based paint, asbestos, and plastics contaminating nearby surface water. The proposed native plantings within the floodway are expected to provide improved bank resiliency, as well as improve water quality by filtering runoff from Beattyville. Based on lack of impacts to suitable habitat and the implementation of an erosion control plan, we concur with your determination that the proposed action, “may affect, but is not likely to adversely affect” federally listed mussel species.

Summary

The USACE has determined that the proposed action will have “no effect” on the gray bat, Virginia big-eared bat, northern long-eared bat, and Indiana bat. The KFO concurs that the proposed action “may affect but is not likely to adversely affect” the Kentucky arrow darter, Kentucky arrow darter Designated Critical Habitat, clubshell, fanshell, longsolid, rabbitsfoot, and round hickorynut. In view of these findings, we believe that the Section 7 requirements of the Endangered Species Act for this project are fulfilled. The USACE 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 Karah Jaffe of my staff at karah_jaffe@fws.gov.

Sincerely,

**JOSHUA
LILLPOP**

for Virgil Lee Andrews, Jr.
Field Supervisor

Digitally signed by
JOSHUA LILLPOP
Date: 2024.10.03
14:02:42 -04'00'

Section 8: Public Comments

Public Comments

State and Federal agencies were provided with the draft IFR/EA for review on August 13, 2024. The following review comments were submitted from the EPA:

- (1) Threatened and Endangered Species:** Sections 4.5.1 and 4.5.1.2 of the draft IFR-EA identifies threatened and endangered species that may be located within the project area and includes various species of birds, fish, freshwater mussels, and mammals. The USACE determined that project activities will have “no effect” or “may affect but are not likely to adversely affect” all species. An analysis was conducted via the U.S. Fish and Wildlife Service Information for Planning and Consultation web tool, and 12 federally listed species were intersected in the project area. An additional analysis was conducted via the Kentucky Department of Fish and Wildlife Resources threatened and endangered species list and concluded that 20 state listed species were located in the same county as the project area. A request for USFWS concurrence on beneficial impacts was submitted on August 15th, 2024 and USFWS concurred on October 3, 2024.

Recommendation: The EPA principally defers to the U.S. Fish and Wildlife Service regarding compliance with the Endangered Species Act and recommends implementing all conservation measures identified by the USFWS.

Response: Informal Endangered Species Act Section 7 consultation was completed with USFWS and a concurrence letter dated was received by USACE on October 3, 2024.

- (2) Hazardous Substances and Contaminated Sites:** Section 4.1.11 of the IFR-EA states that a Phase I environmental site assessment has not been completed “*due to the limited ability to access all buildings and properties at this point in the planning phase of the study. Therefore, all RECs are not known. However, it can be assumed, given the typical age and type of structures in Beattyville, that lead-based paint and asbestos is present in many of the buildings.*” The project area contains EPA Resource Conservation and Recovery Act regulated facilities and Kentucky Department of Environmental Protection regulated underground and above-ground storage tanks, hazardous waste facilities, solid waste facilities, and petroleum contamination sites.

Recommendation: A Phase I and possibly a Phase II contamination site assessment to identify all contaminated site features within the study area should be conducted. Contaminated sites should be avoided when selecting the location of certain project features (i.e., flood walls and retention basins). If avoidance is not possible, the site should be properly remediated prior to its use. Further evaluation of the unknown hazardous material sites potentially impacted by the Recommended plan should be completed to determine viable measures to prevent potential exposure or contamination. The USACE should further coordinate with the Kentucky Department of Environmental Protection regarding testing, removal, and treatment requirements.

Response: As noted in section 4.1.11 of the IFR-EA, Phase 1 investigations will be performed prior to any construction or demolition activities and all appropriate actions would be taken to remove or abate RECs prior to implementation.

- (3) Historic Properties:** According to Section 2.4.2 of the dIFR-EA, 53 cultural historic structures have been identified within the project area by the Kentucky Heritage Council.

Out of these 53, 32 are included in the Beattyville Historic District (28 contributing and 4 non-contributing). The remaining 21 structures have been determined by USACE to not be eligible for the NRHP. USACE has coordinated and consulted with the KYSHPO on the above-ground structures and the effects associated with the project. Because they are still waiting to review the archaeological report, they could not expressively state that the undertaking (as a whole) will not have an adverse effect to historic properties; however, they did state that the floodproofing measures we intend to implement "...is moving forward with the appropriate means of minimizing or avoiding adverse effects to Beattyville's historic properties."

Recommendation: The USACE should continue consultation efforts with the KY-SHPO as it relates to the sites mentioned above or other historic sites affected by the proposed project and with the federally recognized Tribal Nations, as appropriate.

The complete correspondence can be found in Appendix B. These recommendations had already been incorporated into the study, and no changes to the EA were necessary.

Local Agencies

Local agencies were provided with the draft DPR/EA for review on August 13, 2024. No comments were received from local agencies.

Non-Governmental Organizations

NGOs listed were provided with the draft DPR/EA for review on August 13, 2024. No comments were received from NGOs.

Federally Recognized Indian Tribes

Executive Order 13175 requires all federal agencies to formulate "an accountable process to ensure meaningful and timely input by tribal officials in the development of the regulatory policies that have tribal implications." The USACE Civil Works Tribal Consultation Policy provides guidance to USACE Civil Works on consultation, coordination, and consensus building when working with Tribal Nations. USACE has been directed to apply the Tribal Consultation Policy to its Civil Works programs. Specifically, USACE has incorporated the following six Tribal Policy Principles into its planning processes:

1. Tribal Sovereignty
2. Trust Responsibility
3. Government-to-Government and Nation-to-Nation Relations
4. Consultation Elements
5. Supporting Tribal self-determination, self-reliance, and capacity building, to the fullest extent permitted by law and policy.
6. Protection of natural and cultural resources.

Consultation with Tribal Nations has occurred with THPO's, District Tribal Liaison and district archaeologist. All coordination pertaining to tribal coordination, scoping meeting capturing indigenous knowledge, and NEPA can be found in Appendix B.

Federally recognized Indian Tribes were invited to participate in the initial scoping meeting that was held on August 7, 2023. The Osage Nation was the only Tribal Nation that participated in this engagement. Subsequent Section 106 letters were provided to Tribal Nations on March 15, 2024, to formally consult on the APE and level of effort (LOE). The Osage Nation provided a

letter on April 22, 2024, requesting USACE to provide any draft cultural reports for their review. The archaeological and cultural historic surveys are currently in progress and will be provided to consulting Tribal Nations for their review and concurrence. All correspondence to date can be found in Appendix B. Furthermore, Section 106 Letters were provided to Tribal Nations on March 15 specifically to consult for their indigenous knowledge of the project area on 29 April 2024 (see Appendix B for example). On May 6, 2024, the Delaware Nation responded with a letter stating Lee County is not within their area of interest and deferred future involvement. No other Tribal responses have been received.