Environmental Assessment

Pond River Boat Ramp
Harris-Dickerson Wildlife Management Area

Prepared by:

Kentucky Department of Fish and Wildlife Resources
#1 Sportsman's Lane
Frankfort, KY 40601

Authors:
Doug Dawson
Dan Stoelb

KDFWR
#1 Sportsman's Lane
Frankfort, KY 40601

14 June 2022

Table of Contents

Appendices

Appendix A - Construction Plans

Appendix B – Harris-Dickerson WMA Information

Appendix C – EJSCREEN ACS Summary Report

Appendix D – Soils Map

Appendix E – U. S. Fish & Wildlife Service Section 7 Coordination

Appendix F – Phase I Archeological Survey Pond River Boat Ramp, Hopkins County, Kentucky

1.0 Introduction

This Draft Environmental Assessment (EA) is being prepared to evaluate the effects associated with the proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with Council of Environmental Quality Regulations (40 CFR 1500-1509) and department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. The NEPA requires examination of the effects of proposed actions on the natural human environment

2.0 Purpose and Need

The Kentucky Department of Fish and Wildlife Resources (KDFWR) recently acquired 1,837 acres in Hopkins County to form the new Harris-Dickerson Wildlife Management Area (WMA). Located approximately 7 miles east of Madisonville, this new WMA includes frontage on Pond River and is dominated by wetland and floodplain habitat. The property consists of two tracts of land. The northern tract is dominated by hardwood trees planted as part of a wetland restoration project and provide deer, turkey, squirrel, and rabbit hunting opportunities. The southern tract consists of reclaimed coal mined land. This tract provides small game and waterfowl habitat and recreational opportunities. Interior access to the WMA is limited to walk in and boat in access.

The Pond River is a direct tributary to the Green River, one of the most biologically diverse streams in the United States. There are very few quality access points for fishermen on Pond River, which offers opportunity for crappie, catfish, bass, and bowfishing. The KDFWR recently acquired the Harris-Dickerson WMA, which provide a great opportunity to increase boating access on this river. The nearest boat ramp upstream is the White City Boat Ramp (8 river miles) and the Jewell City Boat Ramp is 26 miles downstream. The proposed project will provide access to recreational opportunities that currently do not exist on this portion of Pond River.

This draft EA will be solicited through the KDFWR website at: https://www.fw.ky.gov. A public comment period of 10 days will commence the first day the EA notice is posted (June 20th). Comments can be submitted via email to Daniel.stoelb@ky.gov. Submitted comments and documented responses to those comments will be included in the final EA.

3.0 Alternatives

3.1. Alternative A – No Action

Under this alternative, the Pond River Boat Ramp would not be constructed, and the area would remain undeveloped. A No Action Alternative has been considered but deemed unsuitable. Without the proposed boat ramp, KDFWR's recreational fishing access mission would not be achieved.

3.2. Alternative B – Pond River Boat Ramp

As part of the KDFWR's ongoing efforts to improve access to outdoor recreational opportunities, the Department is proposing to construct a boat ramp/parking area on Pond River. The Pond River boat ramp will provide quality access to the Harris-Dickerson WMA. A single lane boat ramp will be constructed as well as a parking lot to accommodate 20 vehicles/trailers. According to preliminary design, the total area of impact will not exceed 1.05 acres. The proposed project is located at latitude 37.3194° N longitude 87.3668° W. This location was chosen due to its benefit to the public while also providing the least amount of environmental impact.

3.3. Additional Alternatives

The KDFWR did explore other locations along Pond River within the Harris-Dickerson WMA. No other site on the WMA provided easy access to a highway or road.

Alternative B is the only location that provided access to KY Highway 70 and thus the only construction alternative considered.

4.0 Affected Environments and Potential Impacts

This section addresses the affected environment and the potential impacts caused by the construction of the proposed boat ramp.

4.1. Physical Resources

The proposed boat ramp and parking area are located adjacent to Pond River. It is estimated that the total area of impact will be less than 1.05 acres. Approximately half of the project is located within an open area and the other half is dominated by bottomland hardwood forest. The site has been impacted by past surface coal mining activities.

4.1.1. Land Use and Zoning

4.1.1.1. Affected Environment

Harris-Dickerson WMA in located in Hopkins County, Kentucky. The WMA and the proposed boat ramp are located within the Green River-Southern Wabash Lowlands Ecoregion. This ecoregion is characterized by wide, poorly-drained valleys filled with alluvial and lacustrine deposits with low hills. The ecoregion is largely underlain by Pennsylvania carboniferous sedimentary rocks. The area was once dominated by bottomland hardwood forests and oak-hickory forests within the upland areas. Agricultural and coal mining dominate the landscape within this ecoregion with pockets of un-managed bottomland and upland forests. The 1.05 acre boat ramp is located within the Harris-Dickerson WMA. Harris-Dickerson WMA is utilized for outdoor recreational opportunities as well as fish and wildlife management. The site of the boat ramp currently consists of less than 0.4 acres of forested area and less than 1 acre of maintained open area.

4.1.1.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would have no impact on land use and zoning. The proposed project area would remain as undeveloped land for the foreseeable future.

Alternative B – Pond River Boat Ramp

Construction of Pond River Boat Ramp would alter the land use slightly. The proposed project converts 1.05 acres from undeveloped land to recreational use with the construction of a concrete boat ramp and associated parking area.

The proposed project would benefit the local community by providing boating access and recreational opportunities to a portion of Pond River that currently has limited boating access.

4.1.2. Water Resources

4.1.2.1. Affected Environment

Pond River is located within the Green River basin. The proposed project site is located with the Green River-Southern Lowlands Level 4 Ecoregion. This ecoregion is characterized by low gradient valleys filled with alluvial deposits. Streams within this ecoregion have

historically been impacted by coal mining and agriculture. Pond River is similar to many of the streams within this ecoregion. Pond River is impacted by siltation from mining and agricultural activities. Pond River has been channelized to address flooding issues and as such has limited fish habitat.

4.1.2.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would have no impact on Water Resources.

Alternative B – Pond River Boat Ramp

The proposed project will be the construction of a single lane boat ramp and a parking lot that will accommodate 20 vehicles/boat trailers. The overall footprint of the project is very small and will result in only a minimal amount of impact to water resources. The proposed boat ramp will be constructed using the 'pour and push' method. The ramp forms will be poured and formed within an upland area. Once the ramp sections are poured and cured, they will then be pushed into the ramp location. Erosion control measures and best management practices will be utilized during construction. As a result, impacts to water resources will be minimal and temporary. The long-term recreational benefits of the project outweigh the short-term impacts associated with the construction of the project.

4.1.3. Wetlands

4.1.3.1. Affected Environment

A review of the USFWS National Wetland Inventory Map (USFWS 2019) indicated that the site is located within a wetland complex. However, office and field reviews indicate that the site is dominated by upland with only the ramp portion of the project located within the floodplain. Soils within the construction limits include Fairpoint-Bethesda complex, McGary loam, and Karnak silty clay. Only Karnak silty clay is listed as a hydric soil.

4.1.3.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would have no impacts to wetland resources.

Alternative B – Pond River Boat Ramp

The proposed project has been designed to minimize impacts to wetland resources. A small wetland area has been identified within the project limits. The size of the wetland area impacted by construction of the ramp is less than 0.10 acres. Erosion control measures will be implemented prior to construction to minimize impacts to adjacent wetlands. Construction of the boat ramp and parking area will have a minimal impact on wetland resources.

4.1.4. Air Quality

4.1.4.1. Affected Environment

Hopkins County is in attainment for all National Ambient Air Quality Standards (NAAQS). The U. S. Environmental Protection Agency (EPA) designation indicates that Hopkins County meets or exceeds the standards set forth by the EPA.

4.1.4.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would have no impacts on air quality.

Alternative B – Pond River Boat Ramp

The project will have a minimal short-term impact to air quality caused by dust and exhaust from construction vehicles. The proposed project is the construction of a single lane boat ramp and parking for 20 vehicles/trailers. Due to the small size, the proposed project will not have a permanent impact on air quality and will not affect the status of Hopkins County attainment. No long-term impacts are anticipated from the proposed project.

4.1.5. Noise

4.1.5.1. Affected Environment

The location of the project site is within an existing wildlife management area. The area surrounding the WMA is rural in nature. Current sources of noise include traffic from KY Highway 70, natural ambient sounds as well as sounds from existing recreational uses on the WMA.

4.1.5.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would no impacts on air quality.

Alternative B – Pond River Boat Ramp

The proposed project encompasses approximately 1.05 acres. Once constructed, the boat ramp will have space for 20 vehicle/trailers. There will be minimal short-term impacts to noise levels during construction of the proposed project. These short-term impacts will be temporary. Noise levels are not expected to be significantly elevated from the use of the proposed boat ramp. No adverse impacts to noise levels are expected once the boat ramp is constructed.

4.2. Biological Resources

4.2.1. Fish Resources

4.2.1.1 Affected Environment

The Pond River is a low-gradient medium sized river. Sportfish that are targeted in Pond River include crappie, sunfish, and catfish. Bow fisherman target rough fish and invasive carp.

4.2.1.2 Environmental Consequences

Alternative A – No Action

The No Action Alternative would have no impacts on fish resources.

Alternative B – Pond River Boat Ramp

The proposed project may have a short-term impact on fish resources due to sedimentation from construction activities. Erosion control measures will be implemented to minimize sedimentation during construction. Once constructed, the increase in boat and foot traffic may have a small impact on fish populations near the ramp. The impacts are expected to be minimal and localized and will not have a significant impact on the fishery resources within Pond River.

4.2.2. Endangered Species

4.2.2.1 Affected Environment

The proposed project has been coordinated with the U. S. Fish & Wildlife Service Kentucky Field Office (see Appendix E). The following federally listed species were addressed: Indiana bat (*Myotis sodalis),* Northern Long-eared bat (*Myotis septentrionalis),* Gray bat (*Myotis grisescens),* Clubshell (*Pleurobema clava),* Fanshell (*Cyprogenia stegaria*), Fat pocketbook (*Potamilus capax*), Northern rifflesheIl (*Epioblasma torulosa rangiana),* Spectaclecase (*Cumberlandia monodonta),* Pink mucket (*Lampsilis abrupta),* Purple catspaw (*Epioblasma o. obliquata*), Rabbitsfoot (*Quadrula c. cylindrica)*, Ring pink (*Obovaria retusa*), Rough pigtoe (*Pleurobema plenum*), Sheepnose (*Plethobasus cyphyus*), and Monarch butterfly (*Danaus plexippus).*

The proposed project is located adjacent to Pond River on 1,837 acres of the Harris-Dickerson WMA. Staff from the KDFWR conducted habitat assessments on December 7, 2021, and February 9, 2022. Approximately half of the site is open and dominated by cool season grasses, while the remainder of the site is forested. The forested area is dominated by hackberry (*Celtis occidentalis*), silver maple (*Acer saccharinum*), honey locust (*Gleditsia triacanthos*), shellbark hickory (*Carya laciniosa*), swamp white oak (*Quercus bicolor*), and black gum (*Nyssa sylvatica*). The forested area consisted of an uneven-aged stand with a diameter at breast height (DBH) ranging from 3 inches to 20 inches.

4.2.2.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would have no impacts on endangered species.

Alternative B – Pond River Boat Ramp

The overall footprint of the project is small, approximately 1.05 acres in size. Sedimentation caused by construction of the project will be temporary and minimal. Caves/hibernacula will not be impacted by the project. To minimize impacts to forest dwelling bats, with the approval of the USFWS KFO the KDFWR removed potential roost trees during the winter of 2022. Given the small footprint of the project, removal of all suitable roost trees during the winter, and the installation of erosion control measures during construction the KDFWR determined that the proposed project is “not likely to adversely affect” the Indiana bat, gray bat, and Northern Long-eared bat. The USFWS KFO concurred with our determination (see Appendix E).

There are no known federally listed mussel records within Pond River and habitat for listed mussels does not occur within Pond River. Based on this information the KDFWR determined that the proposed project will have “no effect” on the listed mussel species. The USFWS KFO concurred with our determination (see Appendix E).

4.3. Recreation

4.3.1. Affected Environment

Stream and river fishing is a very popular recreational activity in Kentucky. There are currently few quality access points located on Pond River. The KDFWR recently acquired the Harris-Dickerson WMA, which provide a great opportunity to increase boating access on this river. Currently, the nearest boat ramps to the Harris-Dickerson WMA are the White City ramp (8 miles upstream from proposed project) and the Jewell City ramp (26 miles downstream of the proposed project). The project will provide access to recreational opportunities that currently do not exist on this portion of Pond River.

4.3.2. Environmental Consequences

Alternative A – No Action

The No Action Alternative would have a negative impact on recreational use by not providing a much needed boating access site within an under-served area.

Alternative B – Pond River Boat Ramp

Construction of Pond River Boat Ramp would alter the land use slightly. The proposed project converts 1.05 acres from undeveloped land to recreational use with the construction of a concrete boat ramp and associated parking area.

The proposed project will benefit the local community by providing boating access and recreational opportunities to a portion of Pond River that currently has limited boating access.

4.4. Public Health and Safety

4.4.1 Affected Environment

The KDFWR regulates boating laws in the state of Kentucky. The KDFWR provides boater safety education on its website, within the annual fishing guide, and at boat ramp kiosks throughout the state. The proposed location currently provides no boating access to Pond River and limited to public access via foot traffic.

4.4.2. Environmental Consequences

Alternative A – No Action

Under this alternative, the site would remain as is with passive recreation opportunities. The demand for additional boating access sites would not be met.

Alternative B – Pond River Boat Ramp

In addition to constructing the boat ramp and associated parking lot, the KDFWR will construct an educational kiosk at the ramp. The kiosk will provide information concerning boating safety, boat laws, and regulations. Once built, the boat ramp is expected to relieve congestion at other access sites. Alleviating congestion at existing boating facilities should in turn improve safety conditions. It is anticipated that construction of Pond River boat ramp will not have a negative impact on public safety and could have a positive impact.

4.5. Cultural and Historic Resources

4.5.1. Affected Environment

The KDFWR contracted Wood Environment and Infrastructure Solutions, Inc to complete a Phase I Archeology Survey for the proposed boat ramp (See Appendix F). The Phase I Survey Report was completed on May 16, 2022, using a combination of record searches, shovel test excavation, and pedestrian survey. No archeological sites or cultural materials were found during the survey. Based on the Phase I Report, no additional cultural and/or historic resource work is recommended.

Alternative A – No Action

The No Action Alternative will have no impact on cultural and historic resources.

Alternative B – Pond River Boat Ramp

Based on the findings of the Phase I Archeology Survey Report, construction of the boat ramp is not expected to have any impacts on cultural and historic resources. The results of these findings were sent to the Kentucky Heritage Council on May 18, 2022, for concurrence. If archeological or historic materials are encountered during construction of the project, all work will cease and KDFWR will contact the Kentucky Heritage Council and the U. S. Fish & Wildlife Service for further assistance.

4.6. Socioeconomic Resources and Environmental Justice

4.6.1. Affected Environment

According to the EJSCREEN ACS Summary Report (Appendix C) there are 118 people per square mile within the 10-mile buffer radius around the project site. Of those 31,262 people, 14% are people of color, 28% of the people have an annual income of $25,000 or less, and 14% of the population do not have a high school degree.

Alternative A – No Action

The No Action Alternative may have a negative impact on low income and/or environmental justice communities due to the fact that they would not receive long-term recreational and economic benefits from the construction of the boat ramp and associated parking lot.

Alternative B – Pond River Boat Ramp

The proposed project will increase public access and greater use of Harris-Dickerson WMA by fisherman, hunters, hikers, and other recreational enthusiasts. While the project is relatively small, the local community may see positive socioeconomic benefits. The proposed project will have no negative impact on socioeconomic resources due to the small footprint and rural landscape surrounding the project area.

5.0 Agency Coordination, Public Involvement, and Permits

The U. S. Fish & Wildlife Service Kentucky Field Office Concurred with the findings in the Intra-Service Section 7 Biological Evaluation Form (see Appendix E). Section 106 Compliance Documents have been sent to the State Historic Preservation Office (Appendix F). The KDFWR will apply for the U. S. Army Corps of Engineers Nationwide Permit Number 36, Boat Ramps, and the Kentucky Division of Water Permits. Public involvement will be done concurrently with the permit applications. All permits and approvals will be obtained prior to construction of the project.

6.0 Conclusion

Alternative B, construction of the Pond River Boat Ramp, is the preferred alternative. The Pond River Boat Ramp meets the purpose and need by providing outdoor recreational opportunities that currently do not exist. The overall footprint of the project is small, approximately 1.05 acres.

Based on the information provided within this Environmental Assessment, the KDFWR has determined that the project as proposed will not have a significant impact on the human environment and/or the natural environment.

7.0 List of Preparers

Doug Dawson – KDFWR
Dan Stoelb – KDFWR

8.0 References

Environmental Protection Agency (EPA). 2021. Kentucky nonattainment/maintenance status for each county by year for all criteria pollutants. Kentucky Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Green Book. US EPA. Accessed May 2022.

Environmental Protection Agency (EPA). Environmental Justice Mapper EJSCREEN American Community Summary Report. https://ejscreen.epa.gov/mapper/. Accessed May 2022.

U. S. Army Corps of Engineers (USACE). 2017. Nationwide Permit Regional Conditions for Kentucky NWP 36 Boat Ramps. USACE.
U.S. Fish and Wildlife Service (USFWS). 2019. National Wetlands Inventory Mapper. https://www.fws.gov/wetlands/data/mapper.html. Accessed May 2022.

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

Appendix A
Construction Plans

Andy Beshear
Governor

Kentucky Department of Fish and Wildlife Resources

Rich Storm
Commissioner

POND RIVER BOAT RAMP

Located in Hopkins County, Kentucky

INDEX OF DRAWINGS

PLANS DATED
May 18, 2022

REVISIONS	DATE

DESIGN ENGINEER
Kentucky Department of Fish
and Wildlife Resources
Engineering Division
Michael Scott, PE
#1 Sportsmans Lane
Frankfort, Kentucky 40601
PH. (502)564-5160

POND RIVER BOAT RAMP
POND RIVER
HOPKINS COUNTY, KENTUCKY

DRAWN BY W.R.B.	COMMONWEALTH OF KENTUCKY	DRAWING NO. 1 OF 4
DATE 5/18/2022	KENTUCKY DEPARTMENT OF FISH AND WILDLIFE DIVISION OF ENGINEERING FRANKFORT, KENTUCKY	SCALE
REVIEWED DIV. OF ENGR.		FILE NAME

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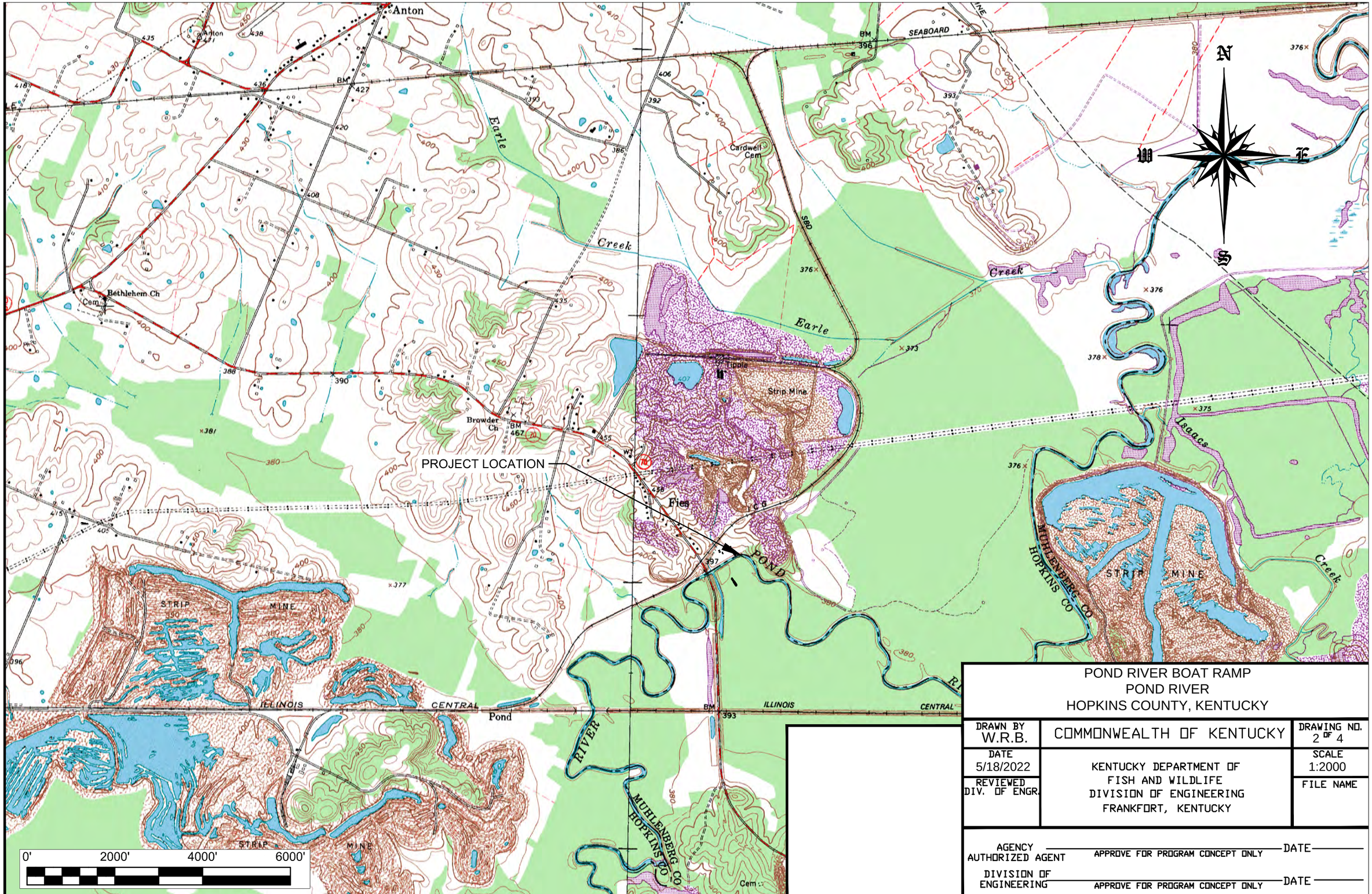
DIVISION OF ENGINEERING _____ APPROVE FOR PROGRAM CONCEPT ONLY _____ DATE _____



POND RIVER BOAT RAMP
POND RIVER
HOPKINS COUNTY, KENTUCKY

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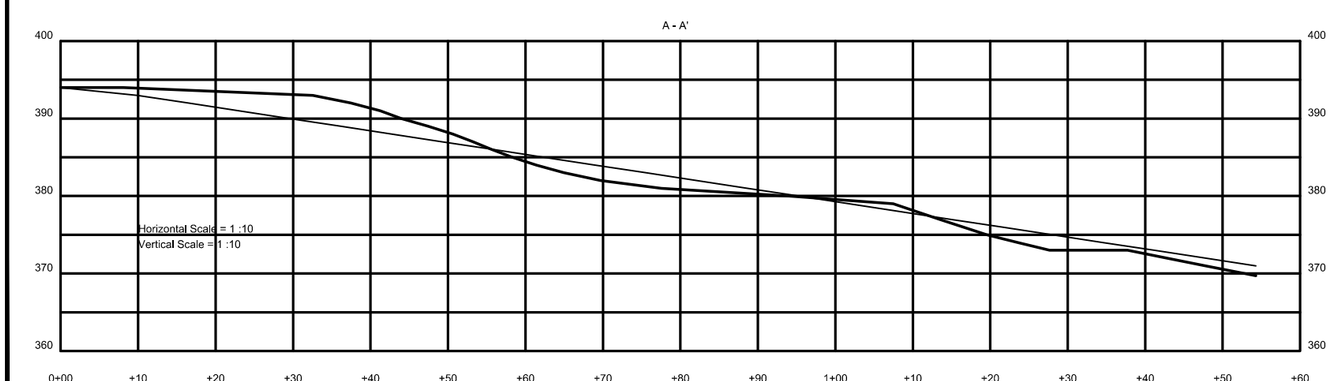

POND RIVER BOAT RAMP
POND RIVER
HOPKINS COUNTY, KENTUCKY

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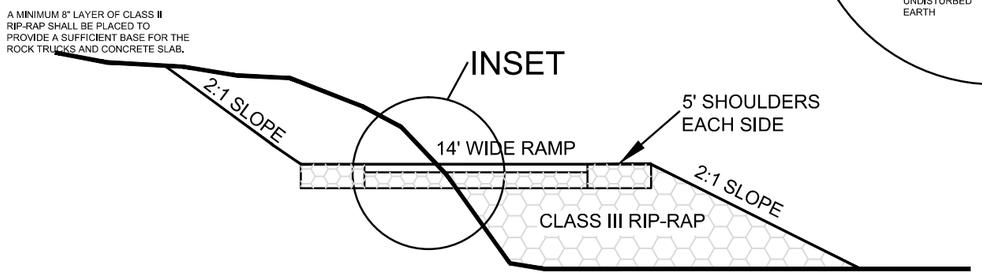

TYPICAL RAMP SECTION

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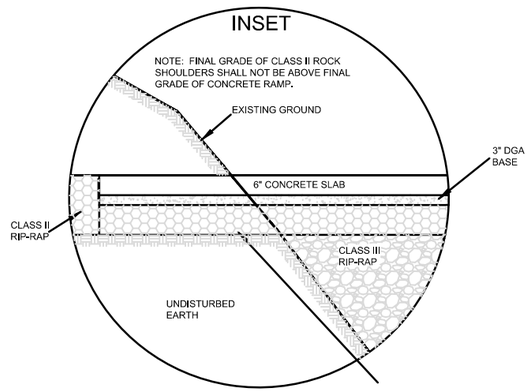
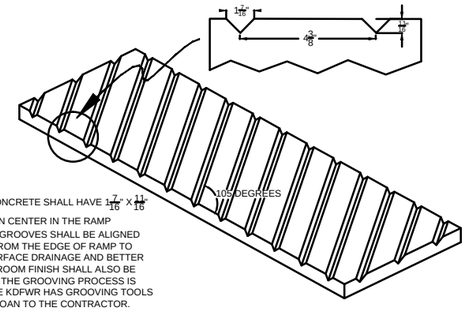
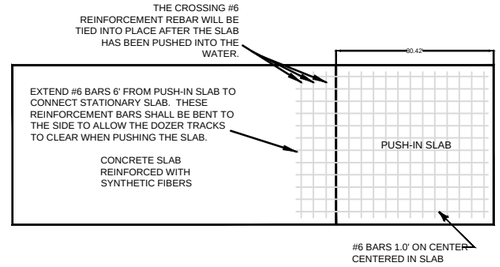




ALL POURED CONCRETE SHALL HAVE $1\frac{7}{16}$" X $\frac{11}{16}$" GROOVES $4\frac{3}{8}$" ON CENTER IN THE RAMP SURFACE. THE GROOVES SHALL BE ALIGNED 110 DEGREES FROM THE EDGE OF RAMP TO ALLOW FOR SURFACE DRAINAGE AND BETTER TRACTION. A BROOM FINISH SHALL ALSO BE APPLIED AFTER THE GROOVING PROCESS IS COMPLETE. THE KDFWR HAS GROOVING TOOLS AVAILABLE TO LOAN TO THE CONTRACTOR.

CONCRETE SURFACE DETAIL

N.T.S.



NOTE:

1. PLACE A LAYER OF #9 STONE COVERED WITH 2 SHEETS OF 4 MIL PLASTIC UNDER PUSH-IN SLAB TO PREVENT BONDING AND ENABLE MOVEMENT OF THE SLAB.

2. THE 2X6 HEADER BOARD WILL REMAIN ON THE UPPER END OF THE PUSH-IN SLAB TO KEEP FROM DAMAGING THE SLAB DURING PLACEMENT WITH A DOZER. IT IS RECOMMENDED TO BRING THE REINFORCEMENT STEEL OUT OF THE PUSH-IN SLAB 2" FROM THE BOTTOM OF THE SLAB TO ALLOW MORE OF THE 2X6 HEADER TO BE EXPOSED.

CONCRETE SLAB DETAIL

N.T.S.

POND RIVER BOAT RAMP
POND RIVER
HOPKINS COUNTY, KENTUCKY

DRAWN BY W.R.B.	COMMONWEALTH OF KENTUCKY	DRAWING NO. 4 OF 4
DATE 5/18/2022	KENTUCKY DEPARTMENT OF FISH AND WILDLIFE DIVISION OF ENGINEERING FRANKFORT, KENTUCKY	SCALE N.T.S.
REVIEWED DIV. OF ENGR.		FILE NAME

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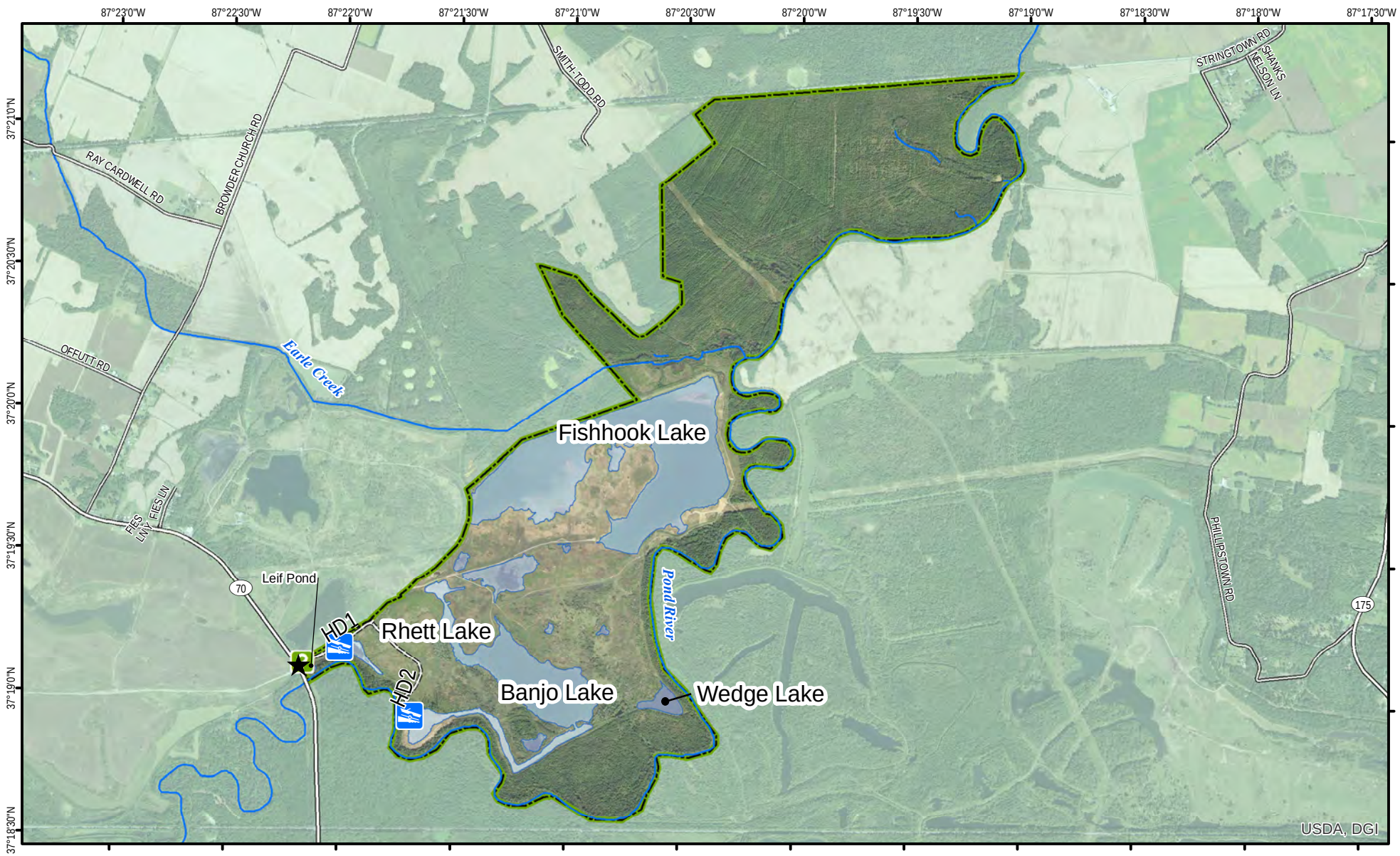
DIVISION OF ENGINEERING _____ APPROVE FOR PROGRAM CONCEPT ONLY DATE _____

Appendix B
Harris-Dickerson Wildlife Management Area Information

Harris-Dickerson WMA



A map legend and additional information are provided on PDF pages that accompany this map.

Publication Date: 3/10/2022
Imagery from Farm Service Agency 2018

N
W E
S

0 0.25 0.5 0.75 1 Mile

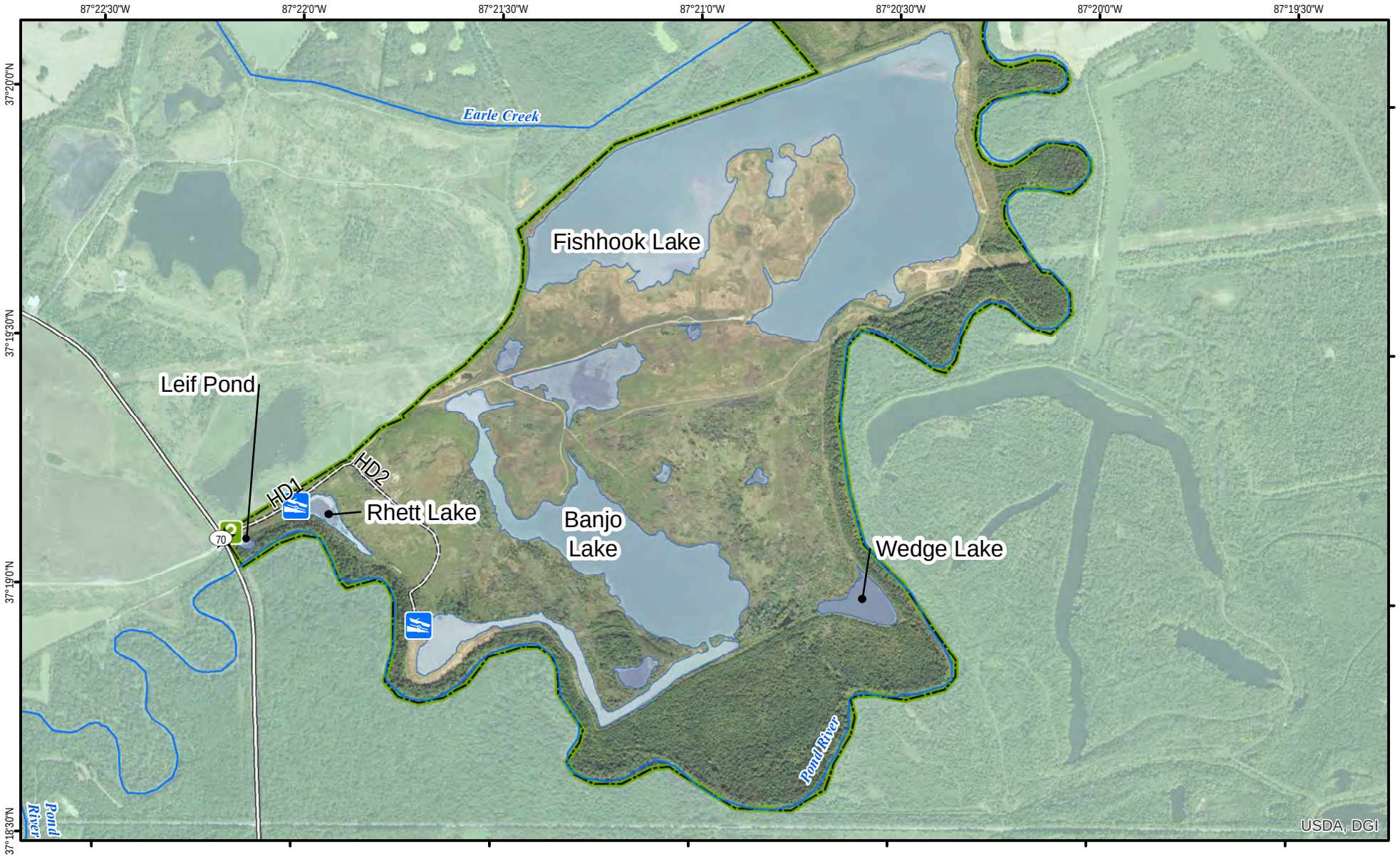
Scale 1:35,000

***Shading indicates topography**

Note to Map Users

Map prepared by Kentucky Department of Fish & Wildlife Resources (KDFWR). Although KDFWR strives for accuracy, data used to create this map are from a variety of sources and dates; as such, KDFWR makes no representations regarding the accuracy or fitness for use of the information furnished herein.

Harris-Dickerson WMA



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Publication Date: 3/10/2022
Imagery from Farm Service Agency 2018

N
W E
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0 0.25 0.5 0.75 1 Mile

Scale 1:20,000

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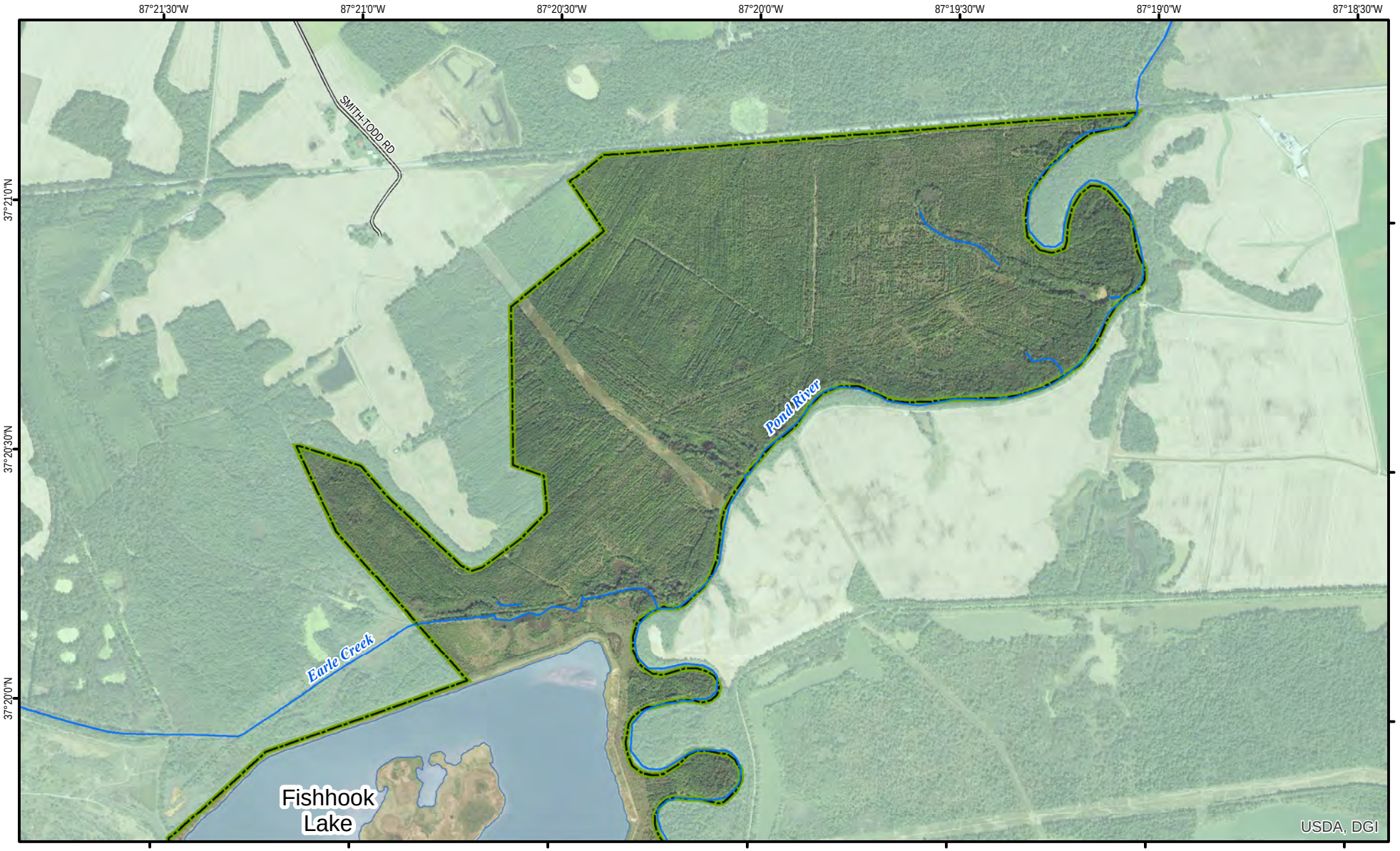
Harris-Dickerson WMA



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N
W E
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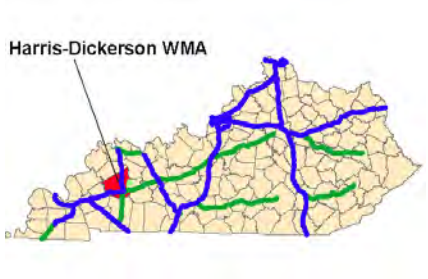
Harris-Dickerson WMA Information

Public Hunting Area Location



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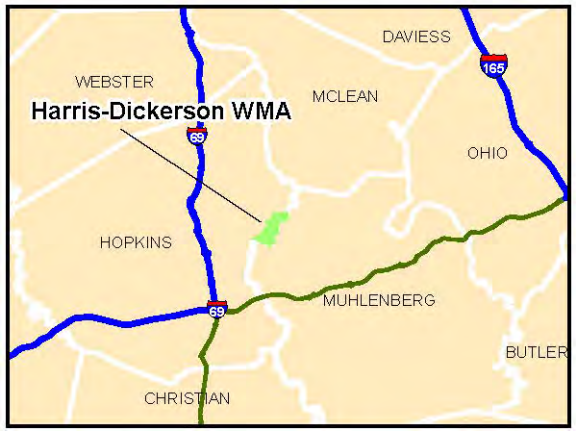

WMA Overview

Location & Size: Hopkins County, 1,837 acres
Contact (270) 476-1889
Elevation minimum 378 feet, maximum 393 feet.
Area Habitat Open Land 8%, Forest 4%, Wetland 70%, Open Water 19%.
Entrance GPS coordinates: Latitude N 37.318292, Longitude W -87.369566

Directions & Description:
From Madisonville, KY, take Exit 114 from I69 onto Hwy 85/70. Travel east on Hwy 85/70 three miles and turn right onto Hwy 70. Travel three miles on Hwy 70 to entrance on the left.

Flat bottomland hardwood forests to the north, rolling reclaimed strip mine and lakes to the south, bounded on the east side by the Pond River. Good populations of deer, turkey, small game, furbearers waterfowl and fish exist on the area. ATVs are prohibited. Owned by KY Department of Fish and Wildlife Resources.

Online Resources

Public Hunting Area users must abide by the Kentucky hunting, trapping, and fishing regulations. It is incumbent on persons using Public Hunting Areas to become familiar with these regulations. Kentucky Department of Fish & Wildlife Resources provides these regulations on our Web site at fw.ky.gov or by calling 1-800-858-1549.

Wildlife Management Area Map Notes & Legend

NOTE TO MAP USERS:

For most WMA maps the landscape is depicted using a combination of elevation contours, hillshading and a green tint indicating woodland areas that is derived from satellite imagery. On WMAs that are relatively small or have a history of surface mining aerial photography is used.

WMA Map Legend

- WMA Office
- Information Kiosk
- Check station
- Mobility-impaired Hunting Blind
- Trailhead
- Horseback Trailhead
- Parking Lot
- Picnic Area
- Restrooms
- Wildlife Viewing Site
- Interpretive Site
- Retriever Training Site
- Gate
- Campground
- Cemetery
- Corps of Engineers Office
- Waterfowl Blind
- Any Boat
- Bank Access
- Carrydown Only
- Fishing Pier
- Small Boat Only
- Shooting Range
- State Park Office

- WMA Boundary
- Aerial imagery
- Other Public Hunting Areas
- Area Off Limits
- No Hunting
- Seasonally Restricted Access
- Mobility Impaired Hunting Area
- Primitive Hunting Only
- Open Water
- Wetland
- Woodland

- Populated Place
- Kentucky Boundary
- Interstate Highway
- Kentucky Parkway
- U.S. Highway
- State Highway
- Local Road
- Forest Service Road
- Active Railroad
- Abandoned Railroad
- Federal Recreation Trail
- WMA Road
- WMA Foot Trail
- WMA Horse Trail
- Gas Pipeline
- Powerline
- Rivers and Streams
- Dam
- Trout Waters
- Elevation Contour

Appendix C
EJSCREEN ACS Summary Report

EJSCREEN ACS Summary Report

Location: User-specified point center at 37.318808, -87.367765
Ring (buffer): 10-miles radius
Description:

Summary of ACS Estimates	2015 - 2019
Population	31,262
Population Density (per sq. mile)	118
People of Color Population	4,225
% People of Color Population	14%
Households	12,739
Housing Units	14,820
Housing Units Built Before 1950	2,426
Per Capita Income	23,874
Land Area (sq. miles) (Source: SF1)	265.81
% Land Area	97%
Water Area (sq. miles) (Source: SF1)	7.75
% Water Area	3%

	2015 - 2019 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	31,262	100%	509
Population Reporting One Race	30,518	98%	1,087
White	27,475	88%	477
Black	2,456	8%	305
American Indian	125	0%	77
Asian	290	1%	107
Pacific Islander	12	0%	22
Some Other Race	160	1%	99
Population Reporting Two or More Races	744	2%	132
Total Hispanic Population	674	2%	163
Total Non-Hispanic Population	30,588		
White Alone	27,038	86%	468
Black Alone	2,451	8%	305
American Indian Alone	125	0%	77
Non-Hispanic Asian Alone	290	1%	107
Pacific Islander Alone	11	0%	22
Other Race Alone	0	0%	16
Two or More Races Alone	673	2%	132
Population by Sex			
Male	15,441	49%	343
Female	15,821	51%	331
Population by Age			
Age 0-4	1,869	6%	147
Age 0-17	7,117	23%	258
Age 18+	24,145	77%	482
Age 65+	5,673	18%	223

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2015 - 2019 .

EJSCREEN ACS Summary Report

Location: User-specified point center at 37.318808, -87.367765
Ring (buffer): 10-miles radius
Description:

	2015 - 2019 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	21,782	100%	382
Less than 9th Grade	1,124	5%	139
9th - 12th Grade, No Diploma	1,900	9%	143
High School Graduate	8,785	40%	290
Some College, No Degree	4,254	20%	241
Associate Degree	2,213	10%	160
Bachelor's Degree or more	3,506	16%	214
Population Age 5+ Years by Ability to Speak English			
Total	29,394	100%	483
Speak only English	28,711	98%	459
Non-English at Home[1+2+3+4]	683	2%	114
[1]Speak English "very well"	590	2%	114
[2]Speak English "well"	68	0%	53
[3]Speak English "not well"	24	0%	22
[4]Speak English "not at all"	0	0%	16
[3+4]Speak English "less than well"	24	0%	22
[2+3+4]Speak English "less than very well"	93	0%	53
Linguistically Isolated Households*			
Total	2	100%	16
Speak Spanish	2	100%	16
Speak Other Indo-European Languages	0	0%	16
Speak Asian-Pacific Island Languages	0	0%	16
Speak Other Languages	0	0%	16
Households by Household Income			
Household Income Base	12,739	100%	212
< $15,000	2,103	17%	150
$15,000 - $25,000	1,380	11%	146
$25,000 - $50,000	3,463	27%	209
$50,000 - $75,000	2,274	18%	182
$75,000 +	3,519	28%	228
Occupied Housing Units by Tenure			
Total	12,739	100%	212
Owner Occupied	8,561	67%	232
Renter Occupied	4,178	33%	208
Employed Population Age 16+ Years			
Total	24,922	100%	400
In Labor Force	14,213	57%	323
Civilian Unemployed in Labor Force	843	3%	107
Not In Labor Force	10,710	43%	354

Data Note: Datail may not sum to totals due to rounding. Hispanic population can be of anyrace.
N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)
*Households in which no one 14 and over speaks English "very well" or speaks English only.

EJSCREEN ACS Summary Report

Location: User-specified point center at 37.318808, -87.367765
Ring (buffer): 10-miles radius
Description:

	2015 - 2019 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	29,394	100%	483
English	28,711	98%	492
Spanish	332	1%	129
French	12	0%	16
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	68	0%	38
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	2	0%	16
Chinese	19	0%	49
Japanese	N/A	N/A	N/A
Korean	0	0%	16
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	0	0%	16
Other Asian	121	0%	107
Tagalog	69	0%	49
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	0	0%	16
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	35	0%	52
Total Non-English	683	2%	689

Data Note: Detail may not sum to totals due to rounding. Hispanic popultion can be of any race.
N/A meansnot available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2015 - 2019.
*Population by Language Spoken at Home is available at the census tract summary level and up.

Appendix D
Soils Map

Harris Dickerson Boat Ramp
Soils Map

Appendix E
U. S. Fish & Wildlife Service Section 7 Coordination

REGION 4
INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Person: Dan Stoelb
Telephone Number: (502) 892-4453 **E-Mail:** Daniel.stoelb@ky.gov
Date: 02/10/22

PROJECT NAME (Grant Title/Number): *F-111 "KY – Greenup County Courtesy Dock and Pond River Boat Ramp"*

I. Service Program: Federal Assistance

___ **Big P**
___ **Clean Vessel Act**
___ **Coastal Wetlands**
___ **Endangered Species Section 6**
___ **Farm Bill Section 390**
___ **Landowner Incentive Program**
_X_ **Sport Fish Restoration**
___ **State Wildlife Grant**
___ **Wildlife Restoration**

II. State/Agency: *Kentucky/Kentucky Department of Fish and Wildlife Resources*

III. Station Name: *Frankfort*

IV. Description of Proposed Action (attach additional pages as needed):

The Kentucky Department of Fish and Wildlife Resources desires to build a courtesy dock near an existing boat ramp in Greenup County, Kentucky as well as a boat ramp/parking area on the Pond River within Harris-Dickerson Wildlife Management Area. The proposed project boundaries are attached. Tree removal is required by the Department of Fish and Wildlife for the Pond River ramp/parking location, and will be completed by March 31st to allow for project completion this summer. No tree removal is required for the courtesy dock project in Greenup County.

On 7 December 2021 and 9 February 2022, staff from the Kentucky Department of Fish and Wildlife Resources conducted surveys for project viability and tree cutting needs at the Pond River site. The project area is populated with Hackberry (Celtis occidentalis), Silver Maple (Acer saccharinum), Honey Locust (Gleditsia triacanthos), Shellbark Hickory (Carya laciniosa), Swamp White Oak (Quercus bicolor), and Black Gum (Nyssa sylvatica).

Most of the trees present within the project area ranged in size from 3" – 20" dbh). Some larger trees were noted at the site, representing potential bat-roosting habitat. Large, standing dead trees were not present, Discussions on-site indicated the preference for clearing of trees between October 15th – March 31st and the preference of avoiding impacts to the larger trees to the extent possible.

V. Pertinent Species and Habitat:

A. Include species/habitat occurrence map:

B. Complete the following table:

SPECIES/CRITICAL HABITAT	STATUS[1]

Indiana Bat	***E***
Gray Bat	***E***
Northern Long-Eared Bat	***T***
Clubshell, Fanshell, Fat Pocketbook, Purple Cat's Paw, Ring Pink, Pink Mucket, Rough Pigtoe, Spectaclecase, Northern Riffleshell, Sheepnose	***E***
Rabbitsfoot	***T***
Monarch Butterfly	***C***

[1]STATUS: E=endangered, T=threatened, PE=proposed endangered, PT=proposed threatened, CH=critical habitat, PCH=proposed critical habitat, C=candidate specie

VI. Location (attach map):

See attached maps for a detailed area of the project.

A. Ecoregion Number and Name: *70F- Greenup Co Project (Ohio Kentucky Carboniferous Plateau) 72C – Pond River Project (Green River – Southern Wabash Lowlands)*

B. County and State: *Greenup and Hopkins County, Kentucky*

C. **Section, township, and range (or latitude and longitude):**
Greenup Co Project – 38.58° N, 82.74° W Pond River - 37.3194° N 87.3668° W

D. Distance (miles) and direction to nearest town: *See attached maps*

E. Species/habitat occurrence: *No known TE bat records within 5 miles of site. Nearest Grey bat records is 7 miles SE of project, nearest Northern Long-eared bat record is 5.3 miles north of project. No known bat habitat within the project area.*

VII. Determination of Effects:

A. Explanation of effects of the action on species and critical habitats in item V. B (attach additional pages as needed):

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
Indiana Bat, Gray Bat, Northern Long-eared Bat	This project is not anticipated to adversely impact either bat species. No known summer or winter habitat within the project area. Trees to be removed will be cut prior to March 31st to reduce direct impacts to bats.

SPECIES/ CRITICAL HABITAT	IMPACTS TO SPECIES/CRITICAL HABITAT
Clubshell, Fanshell, Fat Pocketbook, Purple Cat's Paw, Ring Pink, Pink Mucket, Rough Pigtoe, Spectaclecase, Northern Riffleshell, Sheepnose, Rabbitsfoot	No impacts to these species are anticipated. There are no known locations within the project area, or within the Pond River near the project location.
Monarch Butterfly	No impacts are anticipated as the site does not include necessary habitat.
Bald Eagle	No bald eagles or nests were observed during the survey period. There is an abundance of similar wooded river bottom habitat in the vicinity of the project area.

B. Explanation of actions to be implemented to reduce adverse effects:

SPECIES/ CRITICAL HABITAT	ACTIONS TO MITIGATE/MINIMIZE IMPACTS
Indiana Bat, Gray Bat, Northern Long-eared bat	The project area contains few large trees, those that are present will try to be avoided. If removal is unavoidable it will occur during the winter months. Fewer than 20 trees are anticipated for removal.
Clubshell, Fanshell, Fat Pocketbook, Purple Cat's Paw, Ring Pink, Pink Mucket, Rough Pigtoe, Spectaclecase, Northern Riffleshell, Sheepnose, Rabbitsfoot, Monarch Butterfly, Bald Eagle	None needed.

VIII. Effect Determination and Response Requested:

SPECIES/ CRITICAL HABITAT	DETERMINATION[1]			RESPONSE[1] REQUESTED
	NE	NA	AA	
Indiana Bat		X		Concurrence
Gray Bat		X		Concurrence
Northern Long-eared Bat		X		Concurrence
Clubshell	X			Concurrence
Fat Pocketbook	X			Concurrence
Purple Cat's Paw	X			Concurrence
Ring Pink	X			Concurrence
Pink Mucket	X			Concurrence
Fanshell	X			Concurrence
Sheepnose	X			Concurrence
Rough Pigtoe	X			Concurrence
Spectaclecase	X			Concurrence
Rabbitsfoot	X			Concurrence
Monarch butterfly	X			Concurrence
Bald Eagle	X			Concurrence

[1]DETERMINATION/RESPONSE REQUESTED:

NE = no effect. This determination is appropriate when the proposed action will not directly, indirectly, or cumulatively impact, either positively or negatively, any listed, proposed, candidate species or designated/proposed critical habitat. Response Requested is optional but a AConcurrence@ is recommended for a complete Administrative Record.

NA = not likely to adversely affect. This determination is appropriate when the proposed action is not likely to adversely impact any listed, proposed, candidate species or designated/proposed critical habitat or there may be beneficial effects to these resources. Response Requested is a AConcurrence@.

AA = likely to adversely affect. This determination is appropriate when the proposed action is likely to adversely impact any listed, proposed, candidate species or designated/proposed critical habitat. Response Requested for listed species is AFormal Consultation@. Response Requested for proposed or candidate species is AConference@.

__**/s/** Dan Stoelb____ _____ _**2/10/2022**_____
Signature (State Representative) **Date**

Program Manager – Fisheries Division
Title

X. Reviewing Division of Federal Assistance Staff Evaluation:

A. Concurrence ___ Nonconcurrence _____

B. ESA Section 7 Coordinator Consulted

C. Remarks (attach additional pages as needed):

_____ _____
Signature **Date**

_____ _____
Title **Office**

X. Reviewing Ecological Services Office Evaluation:

A. Concurrence X **Nonconcurrence _____**

B. Formal consultation required _____

C. Conference required _____

D. Informal conference required _____

E. Remarks (attach additional pages as needed): The Greenup County site has no species issues; however, the Pond River site has suitable Indiana bat roosting habitat. Based on photos provided by KDFWR via a 2/15/22 email, the habitat is unlikely to support roosting Indiana bats so a NLTAA determination is appropriate.

_____ February 15, 2022
Signature **Date**
Field Supervisor KY ES FO
Title **Office**

X. Programmatic Assistant Regional Director -- Division of Federal Assistance:

A. Concurrence _____ Nonconcurrence _____

_____ _____
Signature **Date**

Appendix F
Phase I Archeological Survey Pond River Boat Ramp, Hopkins County, Kentucky

DRAFT REPORT

Phase I Archaeological Survey Pond River Boat Ramp, Hopkins County, Kentucky – Abbreviated Negative Finding Report

KY OSA Registration No.: FY2022-11700
KY OSA Permit No.: 2022-12
Wood Project No.: 567670042
Wood Report No: 22-025

Lead Federal Agency: US Fish and Wildlife Service

Prepared for:
Dan Stoelb
Program Manager – Fisheries Division
Kentucky Department of Fish & Wildlife Resources
#1 Sportsman's Lane
Frankfort, Kentucky 40601

May 16, 2022

Wood E&I Solutions
2456 Fortune Dr.
Suite 100
Lexington, KY 40515 USA
www.woodplc.com

Phase I Archaeological Survey Pond River Boat Ramp, Hopkins County, Kentucky – Abbreviated Negative Finding Report

DRAFT REPORT

KY OSA Registration No.: FY2022-11700
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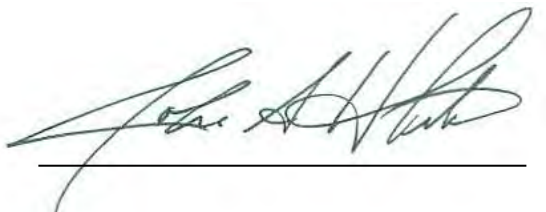
Prepared for:
Dan Stoelb
Program Manager – Fisheries Division
Kentucky Department of Fish & Wildlife Resources
#1 Sportsman's Lane
Frankfort, Kentucky 40601

Prepared by:
John A. Hunter, MA, RPA

Wood Environment & Infrastructure Solutions, Inc.
2456 Fortune Dr.
Suite 100
Lexington, Kentucky 40509



John A. Hunter, MA, RPA
Principal Investigator

05/16/2022

MANAGEMENT SUMMARY

On 29 April 2022, Wood Environment and Infrastructure Solutions, Inc. (Wood) conducted an archaeological survey of the proposed Pond River Boat Ramp in Hopkins County, Kentucky. The Area of Potential Effect (APE) is located north of a bend in Pond River in Hopkins County, Kentucky, and encompasses approximately 1.05 acres.

Before conducting fieldwork, a Kentucky Office of State Archaeology (OSA) Permit for Archaeological Investigations on State, County, or Municipal land was obtained (Permit No. 2022-12). An OSA site file search revealed that no previously recorded archaeological sites are located within the APE; however, seven archaeological sites (15HK12, 15HK15, 156HK22, 15HK85, 15HK121, 15MU138, and 15MU139) are located within the 2-kilometer (km) buffer surrounding the APE. Additionally, no previously conducted archaeological surveys have been conducted within the APE, although five surveys are located within the 2-km buffer surrounding the APE. One survey, Harth et. al 2014, is located immediately adjacent to the current APE.

The Phase I survey was completed using a combination of shovel test excavation and pedestrian survey. The APE consists of thick grassy areas running along the northern portion of the APE adjacent to the gravel road and wooded areas in the southern portion of the APE. A total of 11 STPs were excavated across the APE, all negative for cultural resources. No archaeological sites or cultural material was identified during the survey. As such, no additional archaeological work is recommended for the APE.

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TABLE OF CONTENTS

FIGURES

TABLES

1.0 INTRODUCTION

The Kentucky Department of Fish and Wildlife Resources (KDFWR) contracted with Wood Environment and Infrastructure Solutions, Inc. (Wood) to conduct a Phase I archaeological survey for the proposed Pond River Boat Ramp in Hopkins County, Kentucky (**Figures 1.1 – 1.3**). The purpose of the survey investigations was to identify and document cultural resources and to evaluate each according to their National Register of Historic Places (NRHP) eligibility status, to facilitate KDFWR's compliance with Section 106 of the National Historic Preservation Act. The Area of Potential Effect (APE) is located north of a bend in Pond River in Hopkins County, Kentucky, and encompasses approximately 1.05 acres.

This archaeological investigation was conducted in compliance with Public Law 89-665, the National Historic Preservation Act of 1966 (as amended), 16 U.S.C. 470 (f), and Presidential Executive Order 11593. This project complies with established specifications for field investigations and National Register of Historic Places (NRHP) assessment according to the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (Federal Register, Vol. 48, No. 190, 1983), and with *Specifications for Conducting Fieldwork and Preparing Cultural Resource Assessment Reports* prepared by the SHPO/KHC (Sanders 2006).

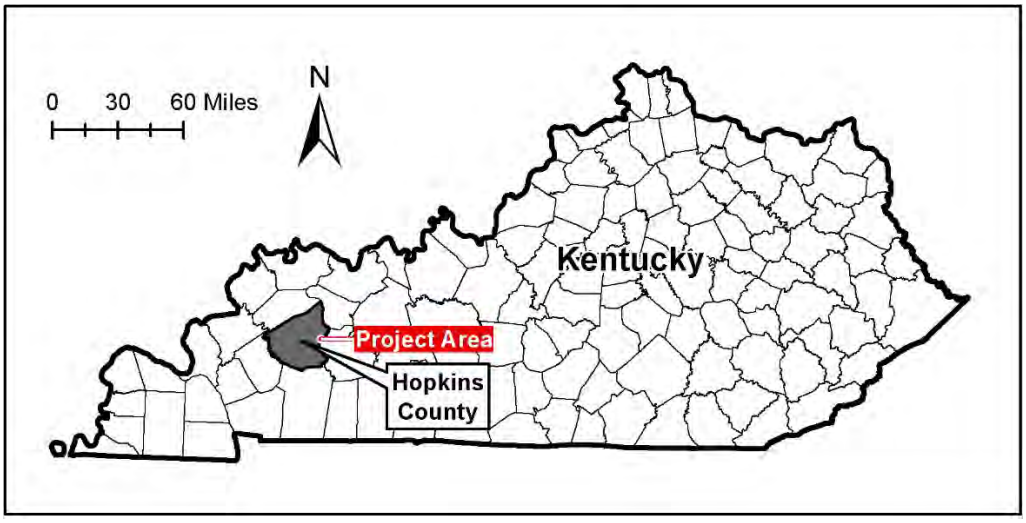

Figure 1.1. Location of the APE in Hopkins County, Kentucky.

The survey was completed on 29 April 2022. John A. Hunter served as the project manager and the principal investigator. The field work was conducted by J Shanks and Joe Eskridge. Report graphics were produced by Daniel Conn. A total of 16 person-hours were used to complete the fieldwork.

1.1 Archaeological Survey Summary

The Phase I survey was completed using a combination of shovel test excavation and pedestrian survey. A total of 11 STPs were excavated across the APE, all negative for cultural resources. No archaeological sites or cultural material was identified during the survey. As such, no additional archaeological work is recommended for the APE.

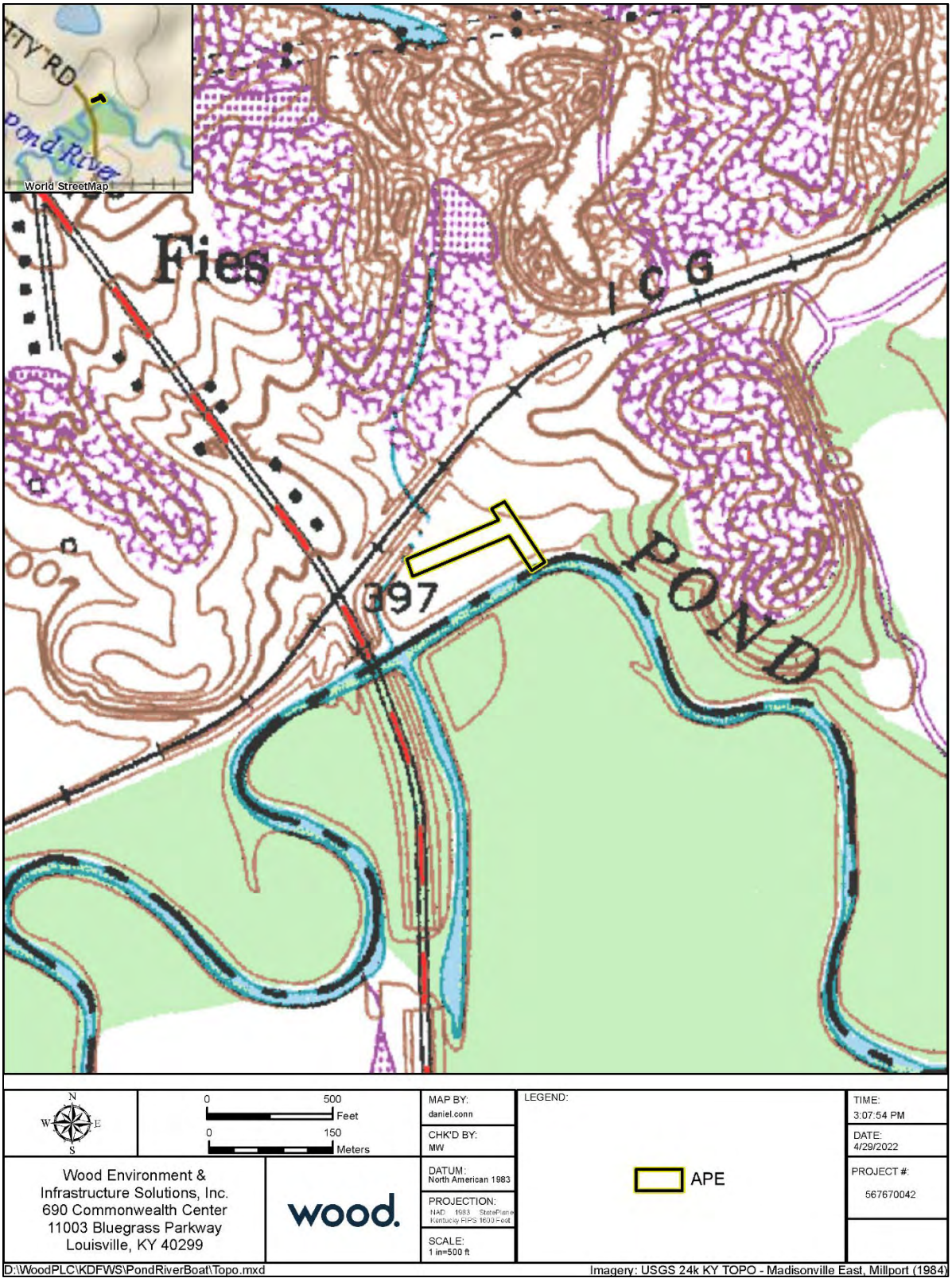

Figure 1.2. The APE depicted on the 1984 7.5′ USGS Madisonville East and Millport, KY topographic quadrangles.

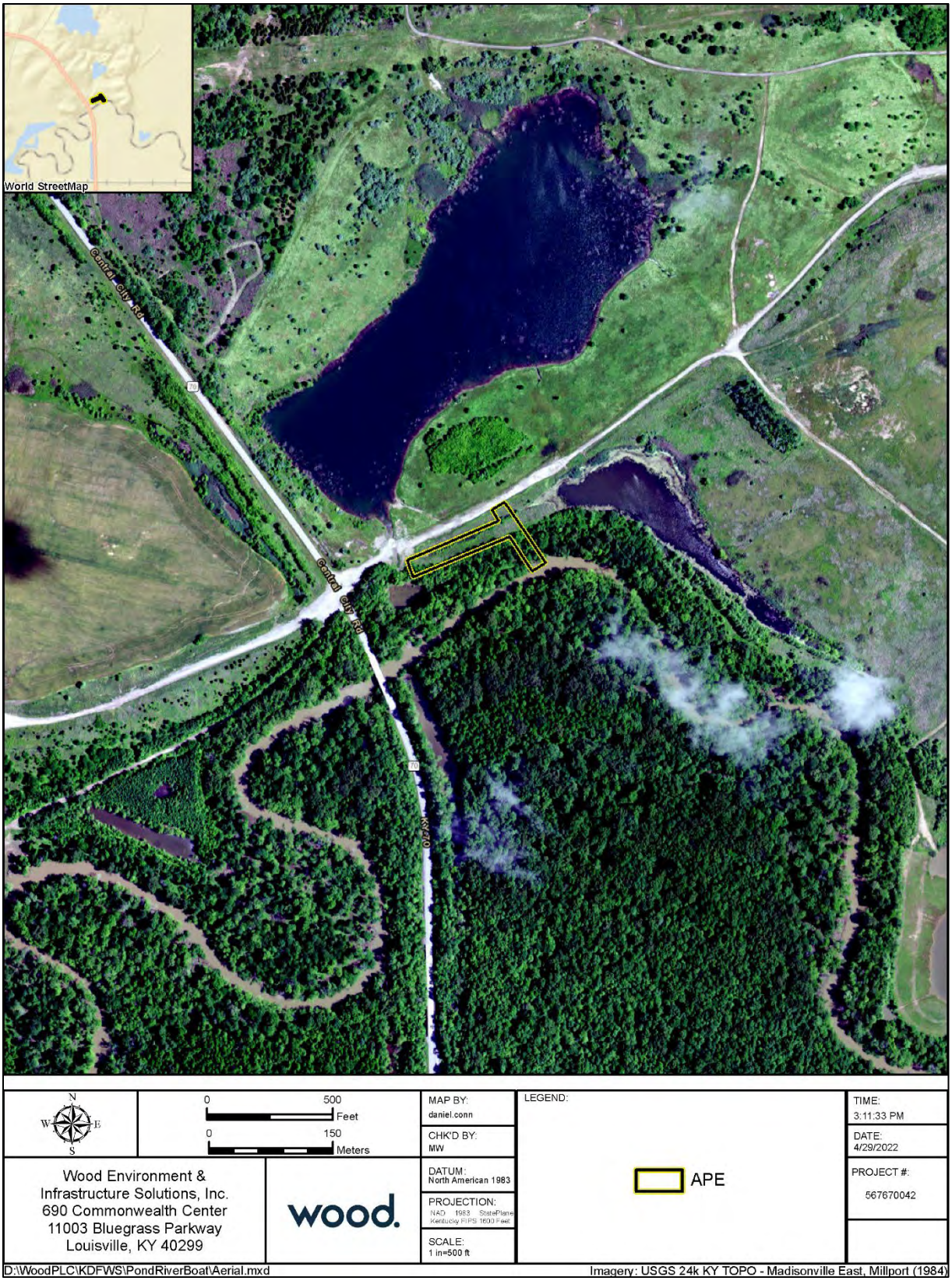

Figure 1.3. The APE depicted on the current aerial.

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2.0 ENVIRONMENTAL SETTING

2.1 Physiography and Geology

The APE falls within the Western Coal Field physiographic region of Kentucky (Fehr et Al. 1977). The topography of the Western Coal Field region varies from nearly level to steep slopes, and, within Hopkins County, the topography consists mostly of wide flood plains and moderate to steep slopes along uplands. Soils in the region are well-drained along the uplands and moderately to poorly drained along floodplains. Geologic formations underlying the project area are Pennsylvanian age bedrock composed primarily from sandstone, siltstone, and shale with occasional thin beds of limestone and coal. Bedrock is overlain by a stratum of loess ranging in thickness from a few centimeters to 183 cm (72.04 inches [in]).

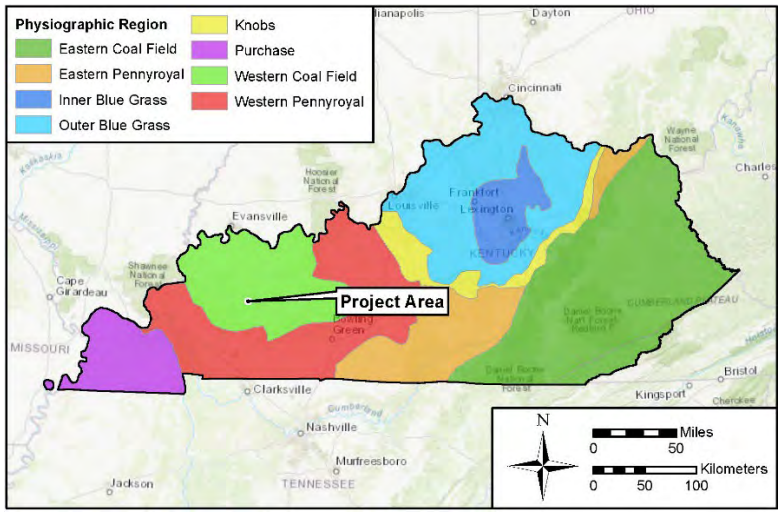

Figure 2.1. Physiographic map of Kentucky depicting the APE.

2.2 Soils

Three soil types are defined within the APE (**Figure 2.2**) and include Karmak silt clay, 0 – 2 percent slopes, frequently flooded (Ks); McGary loam, loamy subsoil variant (Mh); and Fairpoint Bethesda complex, 6 – 20 percent slopes (St [Strip Mine]) (Fehr et Al. 1977). Karmak silt clay, 0 – 2 percent slopes, frequently flooded (Ks) soils are formed on floodplains and typically contain two strata. Stratum I is a silt clay that extends from the ground surface down to 81 centimeters below ground surface (cmbs). Stratum II is clay and extends from 81 down to 203 cmbs. McGary loam, loamy subsoil variant (Mh) soils are formed on stream terraces and typically contain three strata. Stratum I is a loam that extends from the ground surface down to 33 cmbs. Stratum II is a sandy clay loam that extends from 33 down to 66 cmbs, where Stratum III is encountered. Stratum III is a sandy clay and continues down to 152 cmbs. The soils prior to the area being strip-mined included Fairpoint Bethesda complex, 6 – 20 percent slopes (St) soils. Although now these soils are disturbed, the original soils are formed on ridges and hillslopes and typically contain two strata. Stratum I is a gravelly silt loam and extends from the ground surface down to 12 cmbs. Stratum II is a very cobbley loam that extends from 12 down to 203 cmbs (Fehr et Al. 1977; US Department of Agriculture, Natural Resource Conservation Service [USDA/NRCS] 2022).

Figure 2.2. Soil within the APE.

2.3 Prehistoric and Historic Environment

Since the end of the Pleistocene Epoch, both the vegetation and climate of Kentucky have remained relatively stable. Starting at about 10,000 years ago, the entire state of Kentucky was dominated by Maritime Tropical and Pacific air masses. While the glaciers to the north would have made the climate somewhat cooler than today's average temperatures, the weather patterns during this period would have been similar to those of modern times (Delcourt and Delcourt 1984). The area known today as Kentucky was covered by mixed hardwood forests at this time (Delcourt and Delcourt 1981). This type of forest would have contained a wide variety of forest communities. Oak-hickory forests would have been found in warm exposed areas, beech-maple forests would occur in cool, moist shaded areas, and, along streams and river valleys, northern riverine forests would have been present (Kricher 1988:72).

As the glaciers retreated further north, average temperatures rose and the mixed hardwood forests in south-central Kentucky were gradually replaced by oak-hickory forests. By 5,000 years ago, the transition was complete (Delcourt and Delcourt 1981). Oak-hickory forests commonly contain a wide variety of flora. The trees that may have been present prehistorically include different species of oaks and hickories, American chestnut, dogwood, sassafras, hophornbeam, and hackberry. poplar, elm, sweetgum, shagbark hickory, and red maple also may have been present, especially in moist areas. The understory may have contained mountain laurel, a variety of blueberries, and deer berry, among other plants. Herbs may have included wintergreen, wild sarsaparilla, wood-sorrel, mayapple, rue-anemone, jack-in-the-pulpit, and trout lilies, to name a few (Kricher 1988:57).

A wide variety of fauna would also have been present from the early Holocene to early historic times. Mammals that thrived in oak-hickory forests include the gray squirrel, fox squirrel, whitetail deer, raccoon, beaver, woodchuck, a variety of mice, striped skunks, mink, otter, fox, black bear, and bobcats. Bird species would likely have included red-tailed hawks, ruffed grouse, great horned and eastern screech owl, pileated woodpecker, wild turkeys, and blue jay, among others (Kricher 1988:12). A variety of ducks and geese also could have been present during migrations.

The floral and faunal species present in Kentucky remained relatively constant until modern times, when Europeans began to modify the regional ecology (Delcourt and Delcourt 1981). The American chestnut, common during prehistoric times as a canopy tree, has been reduced to an understory tree by a blight introduced into North America in historic times (Kricher 1988:58). The number of black bears, bobcats, mink, foxes, and many other animals has been reduced due to the loss of habitat and hunting.

The pollen record shows that relatively mild temperature fluctuations have occurred since the end of the Pleistocene. After about 10,000 BP, there was a gradual warming trend that resulted in generally higher temperatures than are known today. The highest temperatures appear to have occurred around 5000 BP. This warming trend continued until the beginning of the Little Ice Age (AD 1450-1850) when there was a significant drop in temperature. After the Little Ice Age, temperatures became more moderate (Davis 1983:176).

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3.0 BACKGROUND RESEARCH

3.1 Archaeological Background Research and Historic Map Review

Prior to commencing fieldwork, Wood conducted a literature review at the Site Survey Files at the Office of State Archaeology (OSA) in Lexington, Kentucky. This review was done remotely due to the Covid-19 pandemic and included the APE and a 2-kilometer (km) buffer. The purpose of the research was to identify previous archaeological surveys and recorded archaeological sites within or near the APE. According to this research, no previously recorded archaeological sites are located within the APE; however, seven archaeological sites (15HK12, 15HK15, 156HK22, 15HK85, 15HK121, 15MU138, and 15MU139) are located within the 2-km buffer surrounding the APE. All of these sites remain unassessed according their NRHP eligibility status (**Table 3.1**). Additionally, no previously conducted archaeological surveys have been conducted within the APE; although five (Mcllhany 1988, Hand 1990, Schock 1990, Hand 2002, and Harth et al. 2014) are located within the 2-km buffer surrounding the APE (**Table 3.2; Figure 3.1**). One survey, Harth et Al. 2014, is located immediately adjacent to the current APE (see **Figure 3.1**). To keep their location confidential, archaeological site locations have been omitted from **Figure 3.1**.

In 1988, Mcllhany conducted an archaeological assessment of cultural resources within portions of a strip-mining permit area along the Pond River in Western Kentucky. Three archaeological sites (15HK22, 15HK85, and 15HK121) were identified / reassessed during this survey (Mcllhany 1988). In 1990, Hand conducted a cultural resource assessment of a proposed topsoil borrow area for the FIES #14 Mine, Hopkins County, Kentucky and identified no cultural resources (Hand 1990). Also in 1990, Schock conducted an archaeological reconnaissance of approximately 37 acres for a proposed coal mine in Western Muhlenberg County, Kentucky. Two archaeological sites (15MU138 and 15MU139) were identified during this survey (Schock 1990). In 2002, Hand conducted an archaeological survey of the proposed Charolais Coal No. 1 LLC, coal mining operation along Pond River in Muhlenberg County, Kentucky and identified no cultural resources (Hand 2002). In 2014, Harth et al. conducted a cultural resource survey of a proposed Hopkins County Coal, LLC, coal mining operation in eastern Hopkins County, Kentucky. This survey also did not identify any cultural resources (Harth et al. 2014).

Table 3.1. Previously Recorded Archaeological Sites within 2-km of the APE

Site Number	Cultural Affiliation	Site Type	NRHP Recommendation
15HK12	Undetermined prehistoric	Earth Mound	Not assessed
15HK15	Undetermined prehistoric	Earth Mound	Not assessed
15HK22	Late Woodland, Mississippian, Yankeetown, Angel Carbon-Wellborn	Earth Mound	Not assessed
15HK85	Woodland, Late Prehistoric	Open habitation	Not assessed
15HK121	Woodland, Late Prehistoric	Rock shelter	Not assessed
15MU138	Historic (1801- 1900)	Residence/ Farmstead	Not assessed
15MU139	Woodland, Late Prehistoric	Residence/ Farmstead	Not assessed

Table 3.2 Previously Conducted Archaeological Surveys within the 2-km buffer.		
Authors	**Title**	**Year**
McIlhany, Calvert W.	An Archaeological Assessment of Cultural Resources within Portions of a Strip Mining Permit Area along the Pond River in Western Kentucky	1988
Hand, Robert B.	A Cultural Resource Assessment of a Proposed Topsoil Barrow Area for the FIES #14 Mine, Hopkins County, Kentucky	1990
Schock, Jack M.	An Archaeological Reconnaissance of Approximately 37 Acres For A Proposed Coal Mine In Western Muhlenberg County, Kentucky	1990
Hand, Robert B.	An Archaeological Survey of the Proposed Charolais Coal No. 1 LLC, Coal Mining Operation Along Pond River in Muhlenberg County, Kentucky	2002
Harth, Aaron Kevin Cupka Head, Joanne DeMaio, John Dickerson, Andrew Martin and Cecilia Szmutko	A Cultural Resource Survey of a Proposed Hopkins County Coal, LLC, Coal Mining Operation in Eastern Hopkins County, Kentucky	2014

3.2 Historic Map Review

Before conducting fieldwork, the 1953 Millport, Kentucky topographic quadrangle (**Figure 3.2**) was reviewed. No historic structures are shown with the APE. According to soils research (see **Section 2.2**), the northern portion of the APE appears to have been disturbed by a gravel road associated with strip mining activities north of the APE.

3.3 Survey Expectations

Based on the presence of previously recorded archaeological sites within the 2-km buffer, prehistoric sites could be located within the APE. The lack of historic structures shown on historic mapping suggest a low probability for the APE to contain historic cultural material. Additionally, based on the disturbances noted from aerial imagery, there is a low probability for the northern portion of the APE to contain intact cultural material.

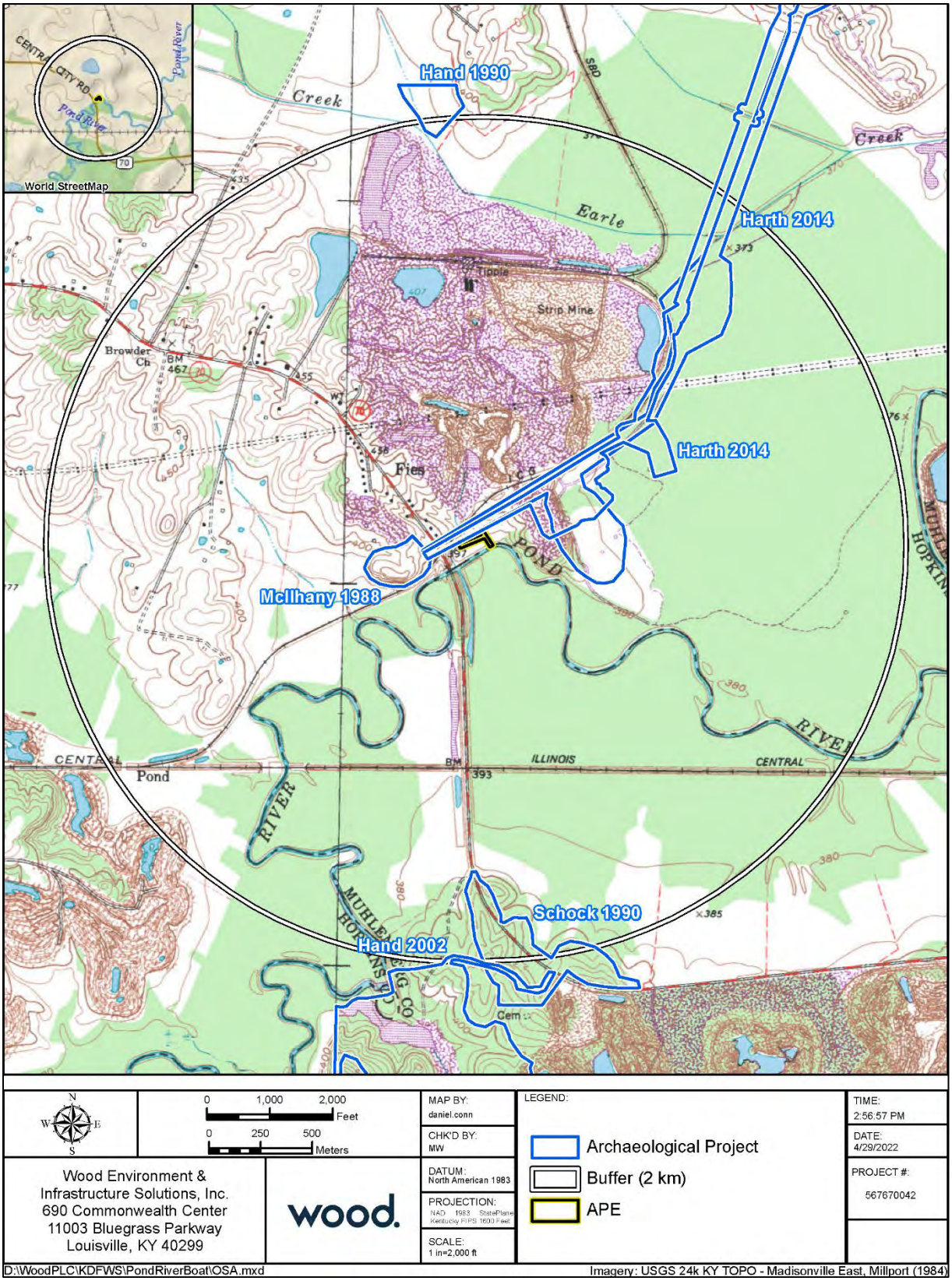

Figure 3.1. Previous archaeological surveys within the 2-km buffer.

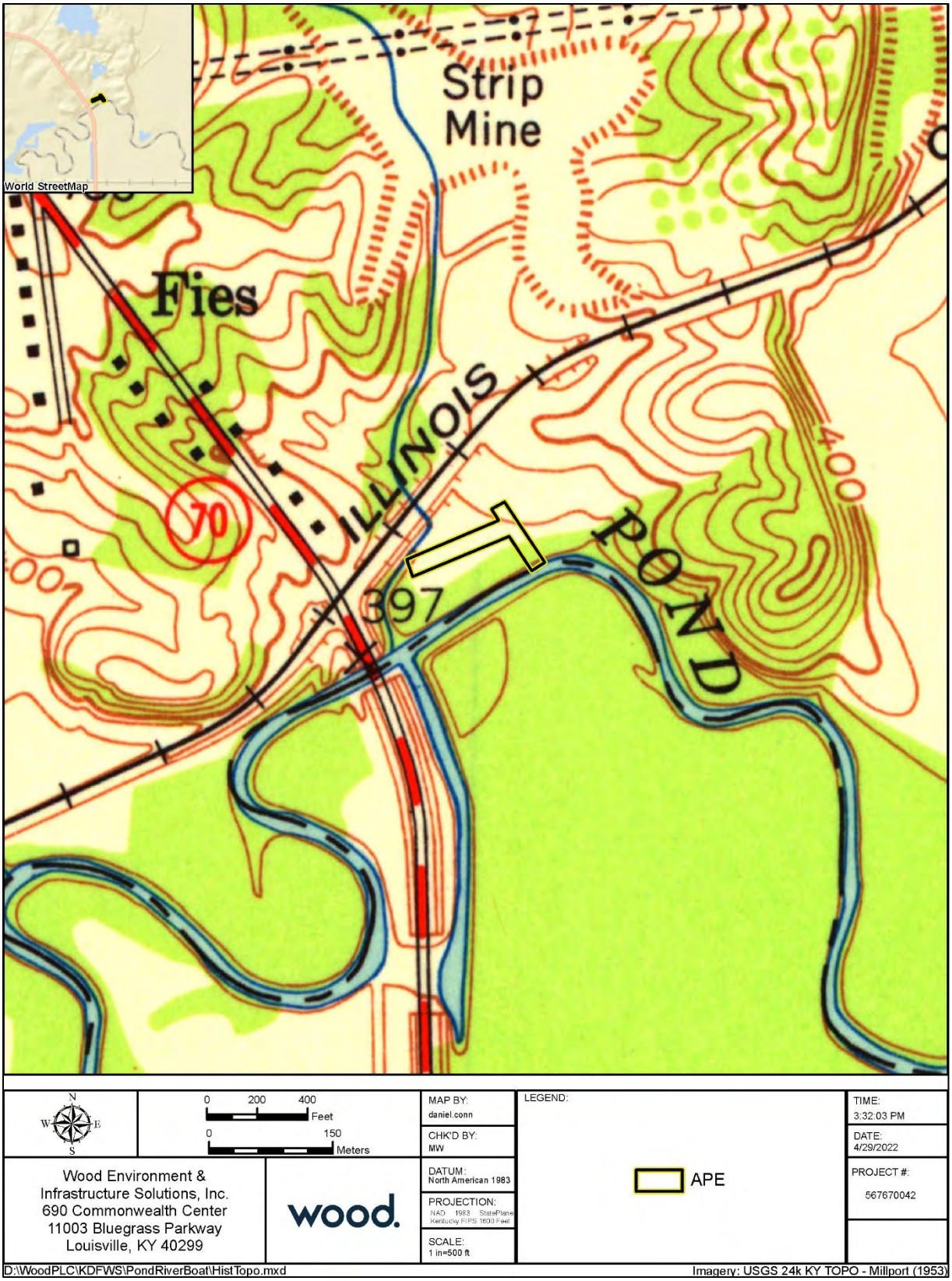

Figure 3.2. A portion of the 1953 Millport, KY topographic quadrangle showing the APE.

4.0 METHODS

4.1 Archaeological Field Methods

Field investigations were conducted according to guidelines established in the state of Kentucky's standards and guidelines as outlined by the Kentucky State Historic Preservation Office (SHPO) (Sanders 2006). The goals of the project were to:

- Identify the presence of previously unrecorded archaeological sites; and
- Establish recommendations regarding the potential for sites within the APE to be eligible for listing on the NRHP.

Portions of the survey area that were wet and/or inundated or exhibited obvious signs of disturbance were visually assessed but not subjected to shovel test probe excavation or systematic pedestrian survey. Areas within the APE where surface visibility was good (greater than 50 percent) were subjected to intensive pedestrian surveys at less than five meters. In portions of the survey area with no obvious signs of disturbance or exhibited reduced surface visibility (less than 50 percent), shovel tests were excavated at no more than a 20-m interval (m). Shovel tests were offset from ditches, utilities, or other obvious areas of surface disturbance. All STPs were 30 cm in diameter and were excavated at least 10 cm into the sterile subsoil, to bedrock, or a maximum of 100 cmbs. Soil from the STPs was screened through 0.25-in hardware cloth. Measurements were recorded using the metric system, and shovel test forms were used to record the soil profile and other information. Soils were described using the Munsell color chart and appropriate terminology. Photographs were taken of representative soil profiles throughout the APE to document the general conditions within the APE.

Mapping for the project was completed using a hand-held Geographic Positioning System (GPS) with sub-meter accuracy. Detailed notes were maintained regarding methods employed and environmental conditions within the APE. Digital photographs showing general views, survey conditions, and specific areas of interest within the survey area were taken as needed.

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5.0 SURVEY RESULTS

The Phase I survey for the proposed Pond River Boat Ramp encompassed approximately 1.05 acres. No archaeological sites or cultural material were recorded during the investigation.

5.1 APE Survey Conditions

The APE consists of thick grassy areas running along the northern portion of the APE adjacent to the gravel road (**Figure 5.1**) and wooded areas in the southern portion of the APE (**Figure 5.2**). The southernmost portion of the APE runs into Pond River. Excavated soils were all consistent and consisted of a 10YR 5/2 grayish brown clay loam mottled with a 10YR 7/6 yellow silt clay (**Figure 5.3**).

5.2 Survey Results

A total of 11 STPs were excavated across the APE (**Figure 5.4**) all containing disturbed soils. No archaeological sites or cultural material was recorded during the investigation. Wood recommends no additional archaeological work.

Figure 5.1. APE overview showing thick grasses; facing northeast.

Figure 5.2. APE overview showing wooded area; facing south.

Figure 5.3. Example of encountered soils within the APE.

Figure 5.4. Survey conditions and STP locations within the APE.

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6.0 SUMMARY AND RECOMMENDATIONS

On 29 April 2022, Wood Environment and Infrastructure Solutions, Inc. (Wood) conducted an archaeological survey of the proposed Pond River Boat Ramp in Hopkins County, Kentucky. The APE is located north of a bend in Pond River in Hopkins County, Kentucky, and encompasses approximately 1.05 acres.

Before conducting fieldwork, a Kentucky OSA Permit for Archaeological Investigations on State, County, or Municipal land was obtained (Permit No. 2022-12). An OSA site file search revealed that no previously recorded archaeological sites are located within the APE; however, seven archaeological sites (15HK12, 15HK15, 156HK22, 15HK85, 15HK121, 15MU138, and 15MU139) are located within the 2-kilometer (km) buffer surrounding the APE. Additionally, no previously conducted archaeological surveys have been conducted within the APE; though five are located within the 2-km buffer surrounding the APE. One survey, Harth et al. 2014, is located immediately adjacent to the current APE.

The Phase I survey was completed using a combination of shovel test excavation and pedestrian survey. The APE consists of thick grassy areas running along the northern portion of the APE adjacent to the gravel road and portions of wooded areas in the southern portion. The southernmost portion of the APE runs into Pond River. Excavated soils were all consistent and consisted of a 10YR 5/2 grayish brown clay loam mottled with a 10YR 7/6 yellow silt clay. No archaeological sites or cultural material was identified during the survey. As such, no additional archaeological work is recommended for the APE.

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7.0 REFERENCES CITED

Davis, M.B.
1983 Holocene Vegetational History of the Eastern United States. In *Late Quaternary Environments of the United States: Volume 2, The Holocene*. University of Minnesota Press, Minneapolis.

Delcourt, P.A and H. R. Delcourt
1981 Vegetation Maps for Eastern North America: 40,000 YR B.P. to the Present. In *Geobotany II*, edited by R.C. Romans, pp. 123-165. Plenum Publishing Corporation.

1984 Late Quaternary Paleoclimates and Biotic Responses in Eastern North America and Western North Atlantic Ocean. *Palaeogeography, Palaeoclimatology, Palaeoecology* 48:263-284.

Fehr, James P., Eullas H. Jacobs, and Henry T. Converse Jr.
1977 *Soil Survey of Hopkins County, Kentucky*. United States Department of Agriculture, Soil Conservation Service.

Hand, Robert B.
1990 *A Cultural Resource Assessment of a Proposed Topsoil Barrow Area for the FIES #14 Mine, Hopkins County, Kentucky.*
2002 *An Archaeological Survey of the Proposed Charolais Coal No. 1 LLC, Coal Mining Operation Along Pond River in Muhlenberg County, Kentucky.*

Harth, Aaron, Kevin Cupka Head, Joanne DeMaio, John Dickerson, Andrew Martin, and Cecilia Szmutko
2014 *A Cultural Resource Survey of a Proposed Hopkins County Coal, LLC, Coal Mining Operation in Eastern Hopkins County, Kentucky.*

Kricher, J.C.
1988 *A Field Guide to Eastern Forests: North America*. Houghton Mifflin Company, Boston.

McIlhany, Calvert W.
1988 *An Archaeological Assessment of Cultural Resources within Portions of a Strip Mining Permit Area along the Pond River in Western Kentucky.*

Schock, Jack M.
1990 *An Archaeological Reconnaissance of Approximately 37 Acres for A Proposed Coal Mine In Western Muhlenberg County, Kentucky.*

USDA/NRCS Soil Survey Staff
2022 *Web Soil Survey* (United States Department of Agriculture [USDA] and Natural Resource Conservation Service [NRCS] Soil Mapping and Official Soil Series Descriptions). Electronic document, http://websoilsurvey.nrcs.usda.gov/app/, accessed April 2022.

APPENDIX A

KY OSA Permit for Archaeological Investigations

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KENTUCKY OFFICE OF STATE ARCHAEOLOGY

University of Kentucky, 1020A Export Street, Lexington, KY 40506-9854
859-257-1944 • fax: 859-323-9866 • email: ky-osa@uky.edu

Permit for Archaeological Investigations on State, County, or Municipal Lands Pursuant to KRS 164.720. Permit required to excavate.	**PERMIT NUMBER 2022-12** **COUNTY OF Hopkins** **Expiration Date: 31 December 2022**

This permit authorizes:

Name: John A. Hunter
Affiliation: Wood Environment & Infrastructure Solutions, Inc.
Address: 2456 Fortune Drive, #100
Lexington, KY 40509

and qualified individuals working under the direct supervision of the permittee to explore, excavate, appropriate, or remove from land owned or leased by the Commonwealth or any state agency or any political subdivision or municipal corporation of the commonwealth, any archaeological site or object of antiquity in accordance with the following described project:

Pond River Boat Ramp

Purpose of Collection: Archaeological survey

Disposition of Collection and Special Conditions: All official notes, records, and artifacts are property of the Commonwealth and are to be retained permanently for future study and stored with an appropriate institution. This permit does not authorize the collection of any items or objects of antiquity for personal use.

This permit is issued on April 13, 2022, by:

Philip Mink

Philip B. Mink, II
Assistant Director, Office of State Archaeology

OSA-3 12/17/2018

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KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES

Rich Storm
Commissioner

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
Fax (502) 564-0506

Brian Clark
Deputy Commissioner

May 18, 2022

Mr. Craig Potts
Executive Director/SHPO
Kentucky Heritage Council
410 High Street
Frankfort, Ky 40601

Subject: New Construction: Section 106 Review
Pond River Boat Ramp – Hopkins County

Dear Mr. Potts,

Attached, please find a Kentucky Heritage Council cover sheet and Phase I archeological survey for the Kentucky Department of Fish and Wildlife Resources proposed construction of a new boat ramp at the newly acquired Harris-Dickerson Wildlife Management Area in Hopkins County, Kentucky. The archaeological report from Wood E&I Solutions indicates that no archaeological sites or cultural material was found during the survey.

Please feel free to contact me if you have any additional question during your review. You may contact me at (502)892-4453 or by email at daniel.stoelb@ky.gov.

Sincerely,

Dan Stoelb
Program Manager – Fisheries Division
Kentucky Department of Fish and Wildlife Resources

KENTUCKY HERITAGE COUNCIL COVER SHEET FOR SECTION 106 REVIEW AND COMPLIANCE

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

SECTION 1: APPLICANT INFORMATION

Project Sponsor or Applicant: Kentucky Department of Fish and Wildlife Resources

Contact Person (name & position)**:** Dan Stoelb

Return Address: 1 Sportsman's Lane, Frankfort Ky 40601

Telephone: 502-892-4453 **Fax:**

Project Title: Pond River Boat Ramp

SECTION 2: AGENCY INFORMATION

Funding/Permitting Agency: Federal Funding from USFWS

Agency Contact Person (name & position)**:** Scott Meister

Telephone: 404-679-7180 **E-mail:** howard_meister@fws.gov

SECTION 3: PROJECT LOCATION

E911 Street Address (or other description)**:** KY HWY 70 near Madisonville

City/Township: Madisonville **County:** Hopkins

Latitude: 37.318 **Longitude:** -87.369

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

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

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

☐ Non-Construction Planning/Refinancing ☐ Other (describe):

SECTION 5: IDENTIFICATION OF KNOWN HISTORIC PROPERTIES

KHC Preliminary Site Check #: **OSA Preliminary Site Check #:**

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

■ Yes (describe in detail below) ☐ No

See Wood Environmental report.

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

SECTION 6: ATTACHMENTS - Attach all as applicable

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

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

Submit all information to **Craig Potts, Executive Director/SHPO, Kentucky Heritage Council, 410 High Street, Frankfort, KY 40601.**

ANDY BESHEAR
GOVERNOR

JACQUELINE COLEMAN
LT. GOVERNOR

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

MICHAEL E. BERRY
SECRETARY

CRAIG A. POTTS
EXECUTIVE DIRECTOR &
STATE HISTORIC
PRESERVATION OFFICER

06/14/2022

Dan Stoelb
Kentucky Department of Fish and Wildlife Resources
1 Sportsman's Lane
Frankfort, KY 40601

Re: USFWS, KDFWR New Construction, Pond River Boat Ramp
KY-70 near Madisonville, Hopkins County, Kentucky and

Phase I Archaeological Survey Pond River Boat Ramp, Hopkins County, Kentucky
By John Hunter, Wood Environmental, Inc. (Wood), May 2022

Dear Mr. Stroelb:

Thank you for submitting the Phase I archaeological survey and Section 106 documentation office for the above-referenced undertaking. We understand KDFWR is proposing to install a boat ramp facility within a 1.05-acre APE in Hopkins County, Kentucky. The project entails the construction of the ramp, parking lot, and utility infrastructure for the facility. The archaeological survey did not identify any cultural resources, and no above-ground resources are present within or adjacent to the project APE.

After review, our office accepts this report without revision. We would concur with a finding of **No Historic Properties Affected**.

In the unlikely event that human remains are found during the construction for this project, work should cease immediately, and the county coroner and Nicole Konkol at the Kentucky Heritage Council (nicole.konkol@ky.gov) should be contacted. Should there be any future concerns or questions pertaining to this response, please do not hesitate to contact David Schatz of my staff at david.schatz@ky.gov.

Sincerely,

Craig Potts
Executive Director and
State Historic Preservation Officer

CP: ds, gf KHC # 65602
e-cc: Phil Mink (OSA)