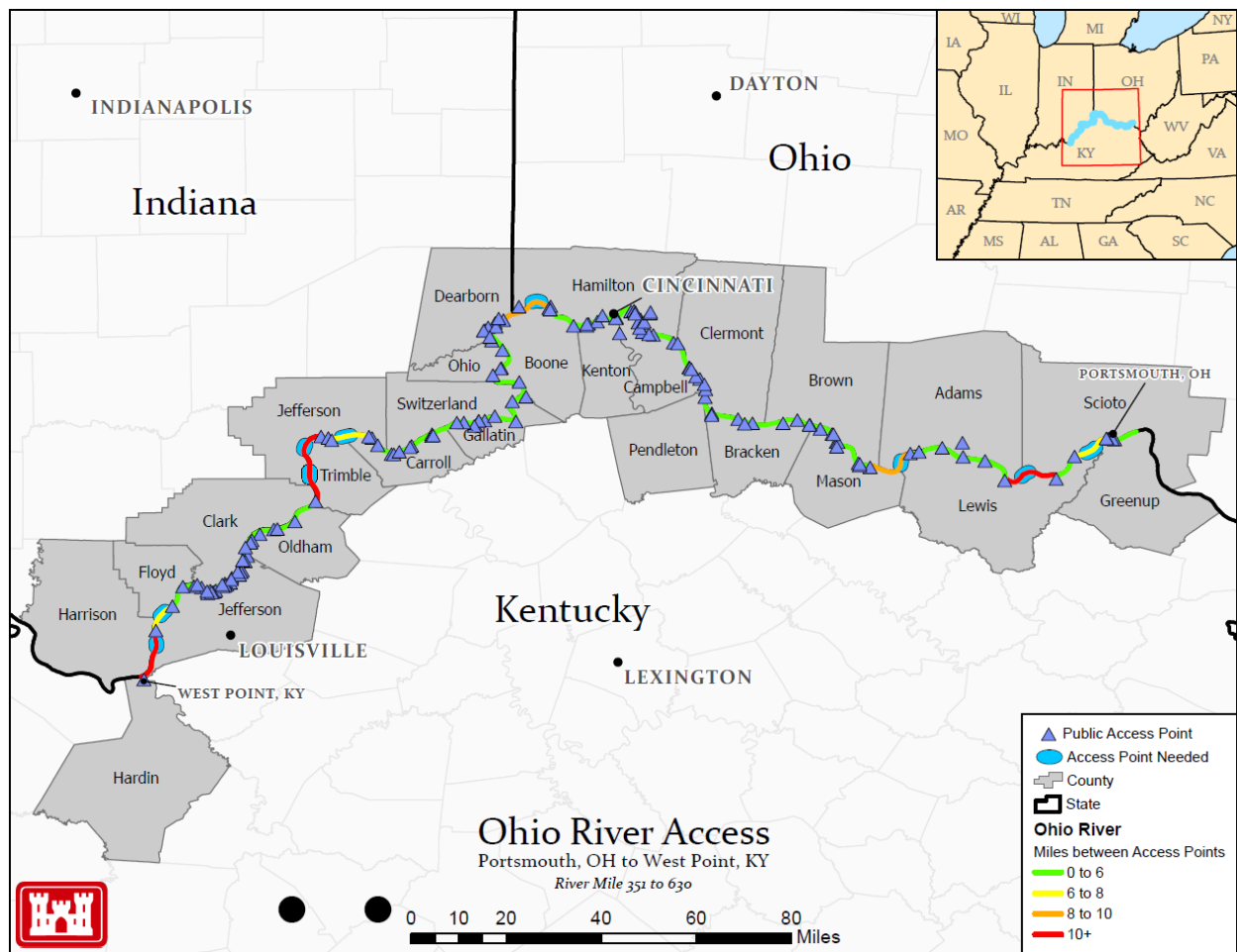


Ohio River Water Trail

Planning Assistance to States Study

Portsmouth, OH to West Point, KY

River Mile 351 to 630



May 2022



TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

 1.1 STUDY PURPOSE..... 1

 1.2 STUDY LOCATION 1

 1.3 SCOPE OF WORK 1

2.0 METHODOLOGY 1

 2.1 EXISTING PUBLIC ACCESS POINTS 1

 Access Point Definition 1

 Access Point Data..... 1

 Tributary Access Points 2

 2.2 6-MILE STANDARD 3

 6-Mile Standard Definition..... 3

 6-Mile Standard Data 3

 2.3 POTENTIAL ACCESS POINTS 4

3.0 RESULTS..... 6

4.0 RECOMMENDATIONS..... 7

5.0 CONCLUSION AND NEXT STEPS..... 8

APPENDICES

- Appendix A – Maps
- Appendix B – Access Point Information
- Appendix C – GIS Metadata



1.0 INTRODUCTION

1.1 STUDY PURPOSE

This report is prepared by the U.S. Army Corps of Engineers (USACE) Louisville District in collaboration with the Ohio River Valley Water Sanitation Commission (ORSANCO) and the Ohio River Basin Alliance's (ORBA) Outdoor Recreation Working Group. The purpose of this study is to create a database of water access points along the Ohio River that will serve trail planners, state agencies, and individual communities and cities. This study will serve as a pilot study to establish a methodology for future access studies, and to inform the development of the Ohio River Recreation Trail and water trails throughout the Ohio River Basin inclusive of on-shore amenities such as day-use rest areas, primitive camping, and other facilities to ensure quality recreation.

1.2 STUDY LOCATION

The study encompasses the 279 miles of the Ohio River from Portsmouth, Ohio to West Point, Kentucky.

1.3 SCOPE OF WORK

The methodology of this pilot study will be discussed in further detail in following sections of this report. This report will:

- Verify and update the existing public access points on the Ohio River;
- Identify stretches of the river that do not meet the 6-mile standard (Section 2.2);
- In the stretches of the river that do not meet the standard, this report serves as a tool to identify potential access points that could be identified and developed; such sites should have nearby road access or should be only one or two properties removed from road access (Section 2.3);
- Compile a GIS report;
- Utilize relevant data from three River Districts (defined above) to define existing access points;
- Develop a re-usable methodology to assess potential access points across study to maximize paddling recreation activities;
- Provide recommendations for refinement of methodology on other stretches of the Ohio River and its tributaries (Section 4.0).

2.0 METHODOLOGY

2.1 EXISTING PUBLIC ACCESS POINTS

Access Point Definition

For the purposes of this study, access points are defined as locations along the Ohio River where paddlecraft could easily enter and exit the water, such as marinas, boat launches and boat ramps, community/local parks, campgrounds, yacht clubs, and harbors.

Access Point Data

In order to establish existing public access points along the 279 miles of the Ohio River, the team gathered data from several sources:

- Ohio River Recreation Trail
- Inland Electronic Navigational Charts (IENC)
- Indiana Department of Natural Resources (INDNR)
- Kentucky Department of Fish and Wildlife Resources (KDFWR)
- Ohio Department of Natural Resources (ODNR)



In addition to gathering Geographic Information Systems (GIS) data for existing access point locations, the team gathered information through online searches for phone numbers, websites, and street addresses when available. Access points are indicated on the maps with a blue triangle symbol: ▲ The figure below is an example of how access points appear on the maps:



Example of access points

Existing access point locations are represented on the maps in Appendix A, as well as the accompanying spreadsheet in Appendix B. The spreadsheet in Appendix B includes the following fields which apply to each existing access point:

- Object ID (GIS identification)
- Map ID (corresponding number on the maps)
- Name of access point
- Type of access point
- River mile
- Address
- City
- State
- Zip code
- Phone number
- Website
- Amenities provided
- Whether or not a usage fee is required
- Brief description of the access point
- Map coordinates
- Source data
- Left or right descending bank of the Ohio River
- Report date (date the access point was recorded)
- Number of miles between the point and the next point (this will be discussed more in Section 2.2).

Tributary Access Points

If an existing access point was located on a tributary of the Ohio River, it was included in the study as long as it was determined to be three miles upstream of the Ohio River, making the round trip to and from the tributary access point a total of six miles.



2.2 6-MILE STANDARD

6-Mile Standard Definition

In the context of this study and report, the 6-mile standard refers to the maximum acceptable distance between river trail access points.

Depending on the project, location and conditions, different mile standards may apply. For instance, for the State of Ohio Water Trail Designation it is suggested that access points be no more than 10 miles apart. Each river presents different situations and opportunities, and access points have many considerations such as how the site fits into the greater context of the system, the geomorphology and hydrology of the river, accessibility to roads and parking, frequency of use, impacts on resources, types of recreation and management for visitor experience. The gap analysis is the essential element in determining and prioritizing need without a firm standard of how far that should be. The gap analysis performed for this study is discussed in further detail in the 6-Mile Standard section below.

6-Mile Standard Data

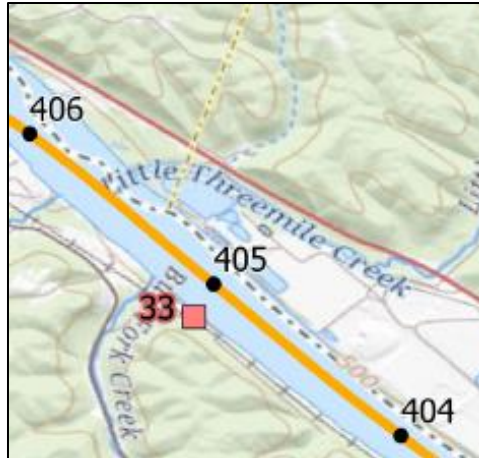
For the purposes of this study, six miles was used as the standard. The basis for this decision was that six miles is more conducive to a family outing on the river, as opposed to a more advanced paddler who could feasibly travel further. More endurance is required for distances exceeding six miles, therefore shorter distances between access points accommodate a broader range of recreational skill levels and opportunities.

The team used river mile data to determine mileage between each access point and the next. The team then performed a gap analysis to determine which stretches of river did or did not meet the 6-mile standard. The gap analysis consisted of identifying those stretches of river which do not provide access points within 6 miles of each other. These stretches not meeting the 6-mile standard are indicated by the highlighted fields in the spreadsheet (Appendix B) that show the distance between that access point and the next. On the 279 miles of the Ohio River included in this study, eight (8) stretches of river did not meet the 6-mile standard.

In addition to access points, the maps in Appendix A designate river miles (symbol: ●), lock and dams (symbol: ■), and original lock houses (symbol: ■). These designations provide a sense of scale and location, as well as alerting river trail users of an approaching obstacle. Additionally, original lock houses could potentially serve as future access points if they are no longer in operation.

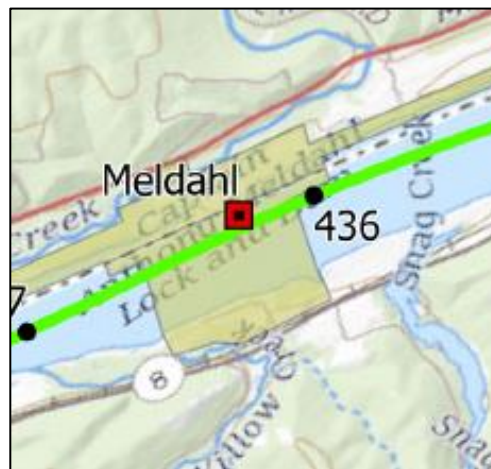
The lock house numbers provided on the map in Appendix A correspond to the original lock number and name. Identification of potential access points will be discussed in Section 2.3.

The figure below is an example of how river miles and original lock houses appear on the maps:



Example of river miles and original lock house

The figure below is an example of how lock and dams appear on the maps:



Example of a lock and dam

The maps also utilize a color-coded line running the length of the river to indicate the miles between access points: green indicates 0 to 6 miles between access points, yellow indicates 6 to 8 miles, orange indicates 8 to 10 miles, and red indicates 10 or more miles between access points. To determine the color/distance, the team used river miles to measure the distance between access points and then applied the corresponding color.

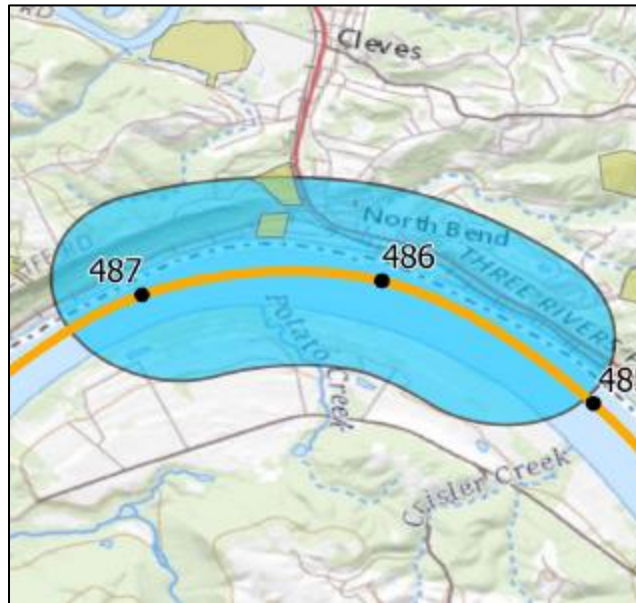
2.3 POTENTIAL ACCESS POINTS

In order to identify potential access points along the Ohio River, the team analyzed the stretches of river that did not meet the 6-mile standard. The team applied a 2,500 foot buffer around the centerline of the river in the areas that did not meet the six-mile standard. Since the Ohio River is narrower than 2,500 feet, the buffer allowed for land to be consistently evaluated on either side of the river.

After the 2,500 foot buffer was applied to the areas that did not meet the six-mile standard, the buffer was then narrowed down to areas that had nearby road access or were one or two properties removed from road access, and had the highest density of roads. The team used their best judgment to identify the areas of most road density and also which roads were most accessible. Areas of the Ohio River that

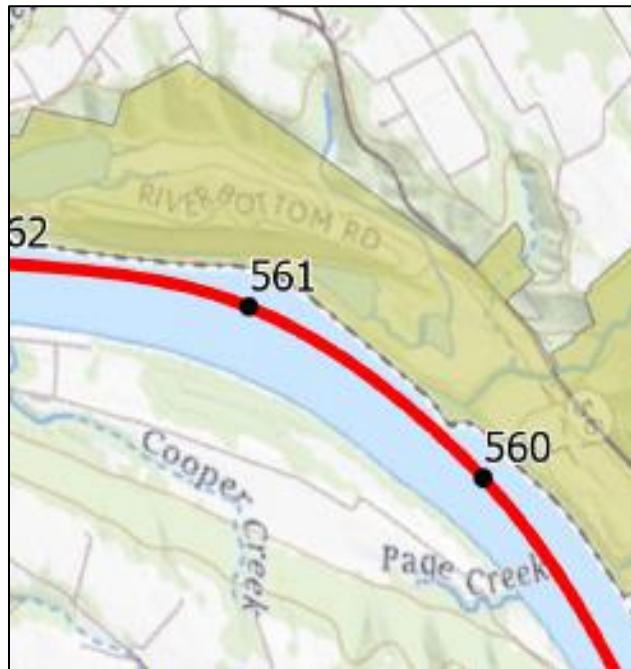


do not meet the 6-mile standard and were identified as locations for potential access points are indicated on the maps with a blue oblong shape, as shown in the figure below:



Example of a potential access point location

The team then analyzed land ownership and determined whether the land was publicly or privately owned. Public land was identified on the maps with a light brown overlay. This information helps inform the process for obtaining recreational access from the water, as the process for obtaining access to public land will differ from the process for obtaining access to private land. The figure below shows an example of public land (indicated by the brown overlay) vs private land:



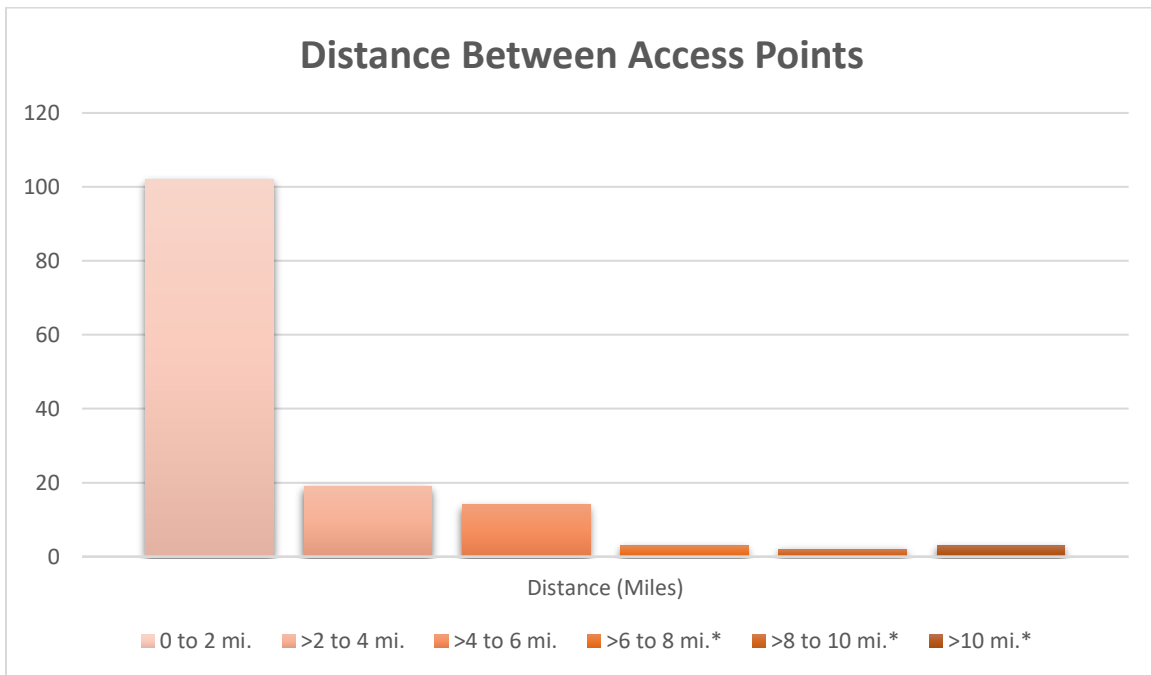
Example of public land (brown overlay) vs private land



Additionally, the team overlaid the maps with county name data, which will help facilitate the process of obtaining recreational access by providing a starting point for contacting the local government representative.

3.0 RESULTS

Analysis of this study identified 152 access point sites along this 279-mile segment of the Ohio River. Although the majority (94.4%) are within the recommended 6-mile distance of each other, there are currently 8 segments exceeding this 6-mile standard. Of these 8 segments, 3 exceed by 6 to 8 miles, 2 segments exceed 8 to 10 miles, and 3 segments exceed greater than 10 miles. Distances between all access points are shown in the following figure, with the * indicating the distances that exceed the recommended 6-mile maximum between access points.



The eight segments exceeding the recommended 6-mile distance criteria occur throughout the length of the 279-mile segment. The following table identifies where these access points occur.

Map ID	Name	Access Point Type	River Mile	City	State
7	Shawnee State Park Marina	Marina	363.3	Friendship	OH
9	Vanceburg Boat Dock Community Recreation Center	Access Point	378.3	Vanceburg	KY
15	Maysville River Park	Access Point	407	Maysville	KY
67	Lawrenceburg Landing	Access Point	493	Lawrenceburg	IN
103	Milton Boat Ramp	Access Point	557.2	Milton	KY
106	Bethlehem Boat Ramp	Access Point	574.7	Bethlehem	KY



143	Riverview Park and Boat Ramp	Access Point	619.3	Louisville	KY
144	West Point Boat Ramp	Access Point	630	West Point	KY

Of these 152 existing access point sites, 58 are classified as marinas, 3 as wharfs (quays), and 91 as general access points. A total of 19 of these 144 access points require a fee to use - 16 of which are marinas and three are general access points. 39 sites have no access fees required, and 86 remain unknown due to lack of data.

Each access site has varying levels of amenities available. The majority provide public access, and many sites provide boat ramps, docks, and public parking, however some do not and data is not available for all sites. The table below lists the range of amenities found throughout these sites below.

Existing Access Point Amenities	
Boat Ramp / Canoe Ramp	Carry-Down Boating Access
Camping / RV Camping	Public Access
Dock	Picnic Area
Dock	Pump Outs
Electric	Restrooms
Fuel	Showers
Laundry	Water

4.0 RECOMMENDATIONS

There is currently a wealth of existing spatial data available along the Ohio River, but similar data is lacking along the river’s tributaries. For future expansion of this project’s efforts and to create a larger interconnected network with the surrounding tributaries, this report recommends expanding the collection of spatial data to include the adjacent Ohio River tributaries.

Due to time and budget constraints, this report’s suitability factors for identifying potential access sites were limited to a single factor: transportation (existing roads). To improve methodology on future studies, this report recommends incorporating additional suitability factors. For example, adequate slope and land ownership would improve identification of potential new access sites. Implementing site visits to determine additional site conditions including river current conditions and any accumulating debris or other potential sources of maintenance on site, the condition of existing slopes, erosion and soils, vegetation, accessibility, as well as other opportunities and limitations, would all help to identify potential access sites.

This report utilized various data sources, including potentially outdated data. Reports dated from 2004, 2005, 2012, 2017, and 2019. This report recommends site visits to each site to verify information within this database is still relevant. To further prevent the unintentional use of outdated data, a future large-scale project to update the Ohio River’s existing spatial data is recommended.



5.0 CONCLUSION AND NEXT STEPS

This report, along with the accompanying maps and access point data, is intended to create a database of water access points along a 279-mile stretch of the Ohio River from Portsmouth, Ohio to West Point, Kentucky. This study will serve as a pilot study to establish a methodology for future access studies, and to inform the development of the Ohio River Recreation Trail and water trails throughout the Ohio River Basin.

As a next step, future studies can utilize this report's database as a starting point to conduct individual site visits to each of the access sites and Lock Houses to understand existing conditions and limitations. An overall understanding of existing conditions across all 144 access sites holds the potential to become a tool to prioritize future developments, improvements, resources, and future funding.

Since approximately 30% of the sites along this 279-mile stretch of the Ohio River are on publicly owned land, which is the preferred ownership of future access sites, another study could research into additional land ownership opportunities within areas exceeding the recommended 6-mile gap for further identification of future access sites. This project's database has the potential to be taken further on additional future studies as well, including as an undertaking to develop cohesive signage, wayfinding, historical, educational, and interpretive planning efforts.