



**Environmental Assessment**  
**Barren River Whitewater Park Project**

**September 2025**

**National Park Service**  
**Outdoor Recreation Legacy Partnership Grant Program**

**I. INTRODUCTION**

**Purpose**

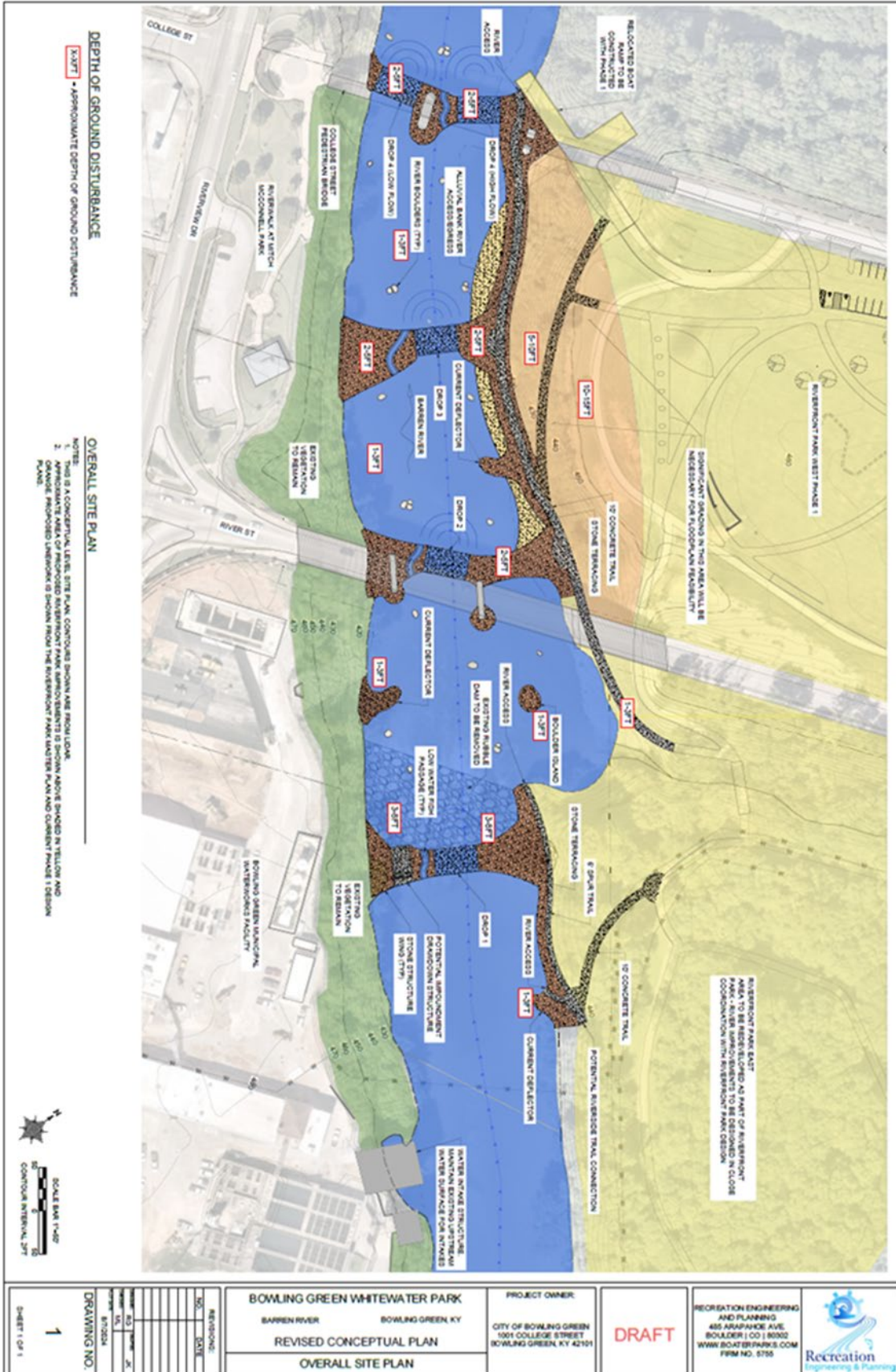
The purpose of the Barren River Whitewater Park Project is to both enhance the safety of the Barren River through the removal of existing physical barriers and to improve access to the river for greater recreational use.

The City of Bowling Green has contracted with MKSK, Strand & Associates, Inc. and Recreation Engineering & Planning (REP) to design a whitewater park consisting of four in-stream drop structures, intended to function across the range of anticipated flows. These structures are created through the installation of stone “wings” at differing heights in the river in order to impound the river’s flow into several large pools, creating a controlled environment accessible to families with small children and users with disabilities. These “wings” will act as access points for swimming, floating, and fishing. The project will also see the removal of an existing dam that poses a hazard to river users. The only current access point to the river is an undersized boat ramp that hinders emergency responses. Improvements brought on by the project will allow visitors to interact with the Barren River in a safe manner, reduce stress on emergency services and open up a natural resource previously inaccessible to many.

The Whitewater Park will complement a larger effort to transform a distressed park in lower Downtown Bowling Green into a recreational hub and economic driver for both the City and surrounding Warren County. The City owns approximately 71 acres of land adjacent to the river, a third of which formerly operated as a C&D landfill. Riverfront Park Phase I will add an improved boat ramp to allow for greater river access for boaters and emergency services and Riverfront Park Phase II will see the construction of unique playground facilities and an observation mound to allow new views of the river and lower downtown. The Whitewater Park is considered the third phase of this Riverfront Park project. Along with the activities mentioned previously, Phase III will include the reshaping of the riverbank to allow for pedestrian and

# City of Bowling Green, Kentucky Barren River Whitewater Park, Bowling Green, KY

## 21-01680 Site Development Plan





## **City of Bowling Green, Kentucky**

### **Barren River Whitewater Park, Bowling Green, KY**

wheelchair access through the installation of pathways to the Barren River. All told, approximately \$24 million in both local funding and grant funding has been secured across the three phases. In addition, the Whitewater Park will sit in a historically disadvantaged area, an Opportunity Zone, and a HUD-approved Neighborhood Revitalization Strategy Area. The park will run adjacent to an upcoming private development poised to add millions of dollars to the local economy and create hundreds of jobs.

#### **Need**

As mentioned previously, the construction of the drop structures will include the removal of a rubble dam located in the river channel. According to American Whitewater, which maintains a reputable nationwide online whitewater guidebook, “at flows below 8ft the rocks turn into a river wide sieve.” This means that, during lower periods, water begins to flow under the dam’s rocks, creating opportunities for swimmers to be caught and drowned by the river’s flow. REP’s drop structures will remove this dam altogether.

With or without the addition of a whitewater park, improvements to the river are necessary. Several drownings have occurred in the project area in the past few years. In September of 2024, a 17-year-old student drowned in the river and their body was recovered within 20 feet of the rubble dam. In October of 2024, a 48-year-old man drowned after disappearing under the water in the rapids portion of the river channel. In August of 2023, a 47-year-old man drowned in the river after fleeing from a Fish and Wildlife conservation officer.

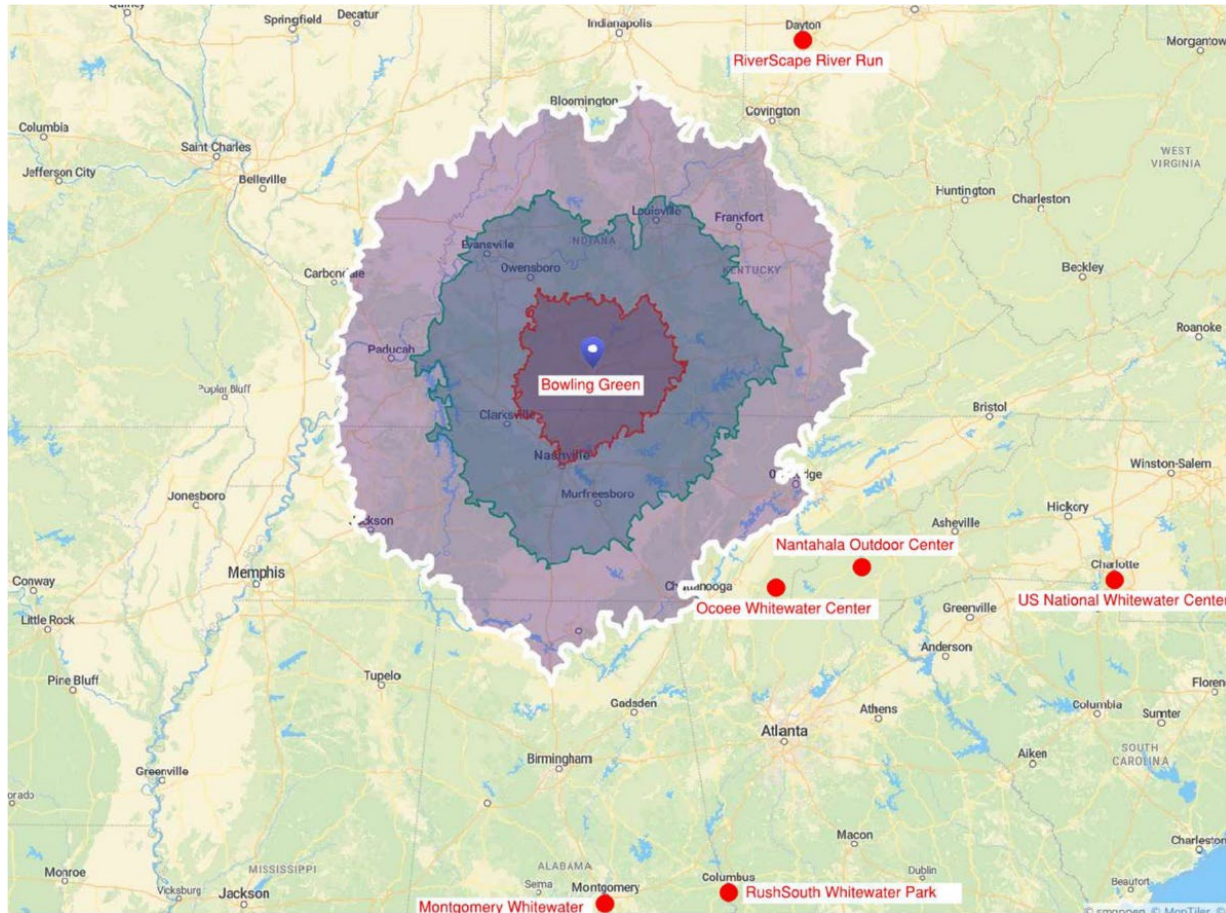
There is also a local need for river recreation opportunities. Bowling Green, and the surrounding region as a whole, lacks access to whitewater amenities. The closest whitewater park, the Ocoee Whitewater Center in Georgia, is more than a 3-hour drive away from Bowling Green. Approximately 9.3 million people live within a three-hour radius from Bowling Green, all lacking whitewater access.

Located at the center of the City’s urban core, the Whitewater Park opens up aquatic recreation to a population less likely to have the ability, income-based or otherwise, to travel for whitewater experiences. According to 2023 data from the U.S. Census Bureau, the Bowling Green Urbanized Area has a population 102,247 and 15.7% of those residents are below the poverty line, a figure above the national rate of 12.5%. Unfortunately, many individuals within the City have limited financial resources and lack personal transportation, and therefore do not have the opportunity to access the nearest whitewater facilities. Accessing outdoor recreation activities is especially difficult for City residents living across the river from the future site of the Whitewater Park in a region known as the Bowling Green Reinvestment Area (BGRA).



# City of Bowling Green, Kentucky

## Barren River Whitewater Park, Bowling Green, KY



The BGRA, a U.S. Department of Housing and Urban Development (HUD) designated Neighborhood Revitalization Strategy Area, is a six census tract area encompassing the City's urban core. This geographic area possesses the lowest incomes, oldest housing stock, and highest concentration of minorities in comparison to the rest of the overall City. The BGRA has a per capita income representing 47% of the national average and 74% of the population in this area is considered by HUD as low-to-moderate income. Nearly 4 out of every 10 people in the BGRA have no available vehicle. The portion of the BGRA located across from the Whitewater Park previously received Opportunity Zone designation from the U.S. Treasury to encourage private investment into the area.

As stated previously, the Whitewater Park, along with additional amenities added through the entire Riverfront Park project, will benefit an impoverished community with little access to varied and unique outdoor recreation.

## II. DESCRIPTION OF ALTERNATIVES



## **City of Bowling Green, Kentucky**

### **Barren River Whitewater Park, Bowling Green, KY**

The alternatives considered were Alternative A: No Action, Alternative B: Change Park Location, and Alternative C: Construct Whitewater Park as Designed.

Alternative A: No Action was considered and rejected. Besides the City's Outdoor Recreation Legacy Partnership Program grant selection to finance the Whitewater Park, the City has also received a Government Resources Accelerating Needed Transformation (GRANT) award in the amount of \$3.3 million from the State of Kentucky to contribute toward the required match for the park's construction. To take no action would be to renege on both Federal and State grant agreements, and the City will not break either covenant.

Alternative B: Change Park Location was considered and rejected. The current project site for the Whitewater Park is the only section to the river adjacent to existing park infrastructure and naturally occurring rapids. To move the project site would mean dislocating the Whitewater Park from the rest of the Riverfront Park project, which would further hinder the ability of visitors without personal transportation to take advantage of the park. Additionally, Phase I of the Riverfront Park includes the construction of a boat ramp to be used by both park visitors and emergency services. To move the Whitewater Park away from this ramp risks longer rescue times due to emergency personnel needing to navigate larger stretches of the river to reach victims.

Alternative C: Construct Whitewater Park as Designed was considered and selected. The safety improvements delivered by the project are too great to ignore and the City has already made several financial commitments, grant funded or otherwise, encouraging the completion of the Whitewater Park.

### **III. AFFECTED ENVIRONMENT**

The affected environment includes the current bottom of the Barren River throughout the project area, stretching from the existing Bowling Green Municipal Utilities water intake to the College Street Pedestrian Bridge, as well as a portion of the riverbank adjacent to drop structures 3 and 4 that will be removed in order to allow for the installation of pedestrian walkways down to the water. The riverbank is currently covered in vegetation and is too steep for safe access. The river bottom is composed of sand, rocks, sandstone, and scattered riprap from past developments.

As a condition of a current ORLP grant for Riverfront Park, the property bordering the proposed Whitewater Park contains a Land and Water Conservation Fund (LWCF) Deed Restriction. The deed restriction includes recorded language against the associated deed advising that the property was developed with LWCF and the property must be preserved in perpetuity for



## **City of Bowling Green, Kentucky**

### **Barren River Whitewater Park, Bowling Green, KY**

outdoor recreation and cannot be converted to any other use without the written approval of the Secretary of the Interior. The Barren River is considered 'Navigable Waters of the United States'. Therefore, the U.S. Army Corps of Engineers (USACE) exercises regulatory authority over the project. A Department of Army Permit will be required for the project. The City of Bowling Green has already initiated a USACE Permit and will continue consultation with the USACE for the Barren River Whitewater Project throughout the duration of the project.

#### Cultural/ Historic Resources

The City of Bowling Green contacted the Kentucky Heritage Council to request Section 106 consultation regarding any cultural or historical resources located in the project site. KHC staff provided concurrence with the City's determination of No Historical Properties Affected. The Section 106 review resulted in no need for an archaeological survey.

#### Sensitive Species

As part of the USACE permitting process, coordination will be undertaken with the United States Fish & Wildlife Service. We will be seeking jurisdictional determination/approval from the U.S. Army Corps of Engineers and any other appropriate agency regarding threatened or endangered species.

#### Waters of the US: Barren River

As the project involves physically changing the flow and shape of the Barren River, the City will coordinate with the U.S. Army Corps of Engineers for all permitting and compliance measures required for the project.

#### Executive Order 12898, Environmental Justice in Minority and Low-Income Populations

The City of Bowling Green has a population that is 57% low to moderate income as defined by the U.S. Department of Housing and Urban development. Many residents only have the fiscal capacity to access close-to-home outdoor recreation opportunities. Unfortunately, many individuals within the City have limited financial resources and lack personal transportation, and therefore do not have the opportunity to access whitewater facilities, which are located a several hours' drive away. Accessibility of these outdoor recreation activities is especially difficult for City residents living across the river from the future site of the Whitewater Park in a region known as the Bowling Green Reinvestment Area.

The BGRA, a HUD designated Neighborhood Revitalization Strategy Area, is a six census tract area encompassing the City's urban core. This geographic area possesses the lowest incomes,



## **City of Bowling Green, Kentucky**

### **Barren River Whitewater Park, Bowling Green, KY**

oldest housing stock, and highest concentration of minorities and female heads of households in comparison to the rest of the overall City. The BGRA has an average combined poverty rate exceeding 50% and seventy-seven percent 77% of the population in this area is considered by HUD as low-to-moderate income. The average percentage of people with no available vehicles in the BGRA is 12.1% which is more than double the City and National averages and nearly quadruples the State average. The portion of the BGRA located across the Barren River from the future Whitewater Park site has received an Opportunity Zone designation from the U.S. Treasury to encourage private investment into the area.

Economic benefits produced by the Whitewater Park include short-term construction jobs over the construction period, but it is the long term economic impacts of the project that present the most opportunities. The Riverfront Park Project Site, and by extension the Whitewater Park Project Site, is located in the River Street corridor, an area challenged by blight and underutilized properties. A grassroots effort, begun by River street property owners, has developed in the past few years aiming to revitalize the corridor. Thus far, the property owners successfully petitioned the rebranding of the corridor through changing the name from Old Louisville Road to River Street. One of the property owners currently owns over 30 acres on River Street, most of which is riverfront property connecting to Riverfront Park. This property owner has a plan for developing restaurants, shops, mixed income housing, recreational facilities, and entertainment venues resulting in hundreds of jobs and millions of dollars in private investment. The Whitewater Park plays a key role in this revitalization, as it will draw

visitors from multiple states away wishing to try the rapids who will then patronize local stores and restaurants while in Bowling Green.

#### Park Visitors

Park visitors will be positively impacted by the project as they will have access to a new outdoor recreation opportunity not found within several hundred miles of Bowling Green. Furthermore, the removal of the rubble dam and the construction of the drop structures will improve overall river safety and allow visitors access to a natural resource that was once too dangerous to enjoy.

#### First Responders

The removal of the rubble dam as part of the drop structure construction process takes out the river's most dangerous feature. While the project will lead to a higher number of people actively swimming and floating in the river, the amount of flow control achieved through the



## City of Bowling Green, Kentucky

### Barren River Whitewater Park, Bowling Green, KY

addition of the drop structures will reduce the amount of drowning events caused by the river itself and therefore lead to a reduction in instances of emergency responders needing to perform water rescues. The addition of the concrete access wings and pedestrian pathways down to the river will decrease response times and provide safer river access points for emergency personnel.

#### River Street Corridor

The grass roots effort led by property owners to revitalize the River Street Corridor to reduce blight and improve economic opportunities is dependent on the success of the Riverfront Park, and by extension the Whitewater Park, acting as a catalyst to ignite economic interest in the area.

## IV. ENVIRONMENTAL IMPACTS

### Methodology for Assessing Impacts

For the purposes of this analysis, intensity and duration of the impact are defined as:

- *Negligible* – the impact is barely perceptible or not measurable, and confined to a small area
- *Minor* – the impact is perceptible or measurable, and it is localized
- *Moderate* – the impact is clearly detectable and could have an appreciable effect
- *Major* – the impact would have a substantial, highly noticeable influence
- *Short-term* – the impact would be less than 5 years in duration
- *Long-term* – the impact would be 5 years or more in duration

### Alternative C: Construct Whitewater Park as Designed

*Cumulative Impacts* were determined by combining the impacts of the alternative with other past, present, and reasonably foreseeable future actions within Riverfront Park East and West and the surrounding area.

*Air Quality* – There would be no impacts.

*Consumption of Energy Resources* – There would be no impacts.

*Cultural/ Historic Resources* – There would be no impacts.

*Executive Order 12898, Environmental Justice in Minority and Low-Income Populations* – There would be minor, long-term positive impacts for residents in the adjacent, BG Reinvestment Area, which would now have access to new outdoor and non-traditional recreation opportunities currently limited or not available in the urbanized area.





## **City of Bowling Green, Kentucky**

### **Barren River Whitewater Park, Bowling Green, KY**

*First Responders* – There would be minor, long-term positive impacts for first responders as the removal of the rubble dam will prevent drowning events in the future.

*Former Construction and Debris (C&D) Landfill* – There would be no impacts.

*Geological/Soils* – There would be major, long-term impacts. Soil removed from the riverbank grading process will be placed back into the river as part of the drop structure construction process to ensure minimal changes to the floodplain.

*Land Use* – There would be no impacts.

*Mineral Resources* – There would be no impacts.

*Noise Levels* – There would be no impacts.

*Park Visitors* – There would be moderate, long-term positive impacts for park visitors as there would not only be a new, unique amenity available to visitors, but also a safe way to interact and play in the river.

*River Street Corridor* – There would be minor, long-term positive impacts for the River Street Corridor as the Whitewater Park will serve as a tourism boon for the local area.

*Transportation/Access (roads, right-of-ways, easements, etc.)* – There would be no impacts.

*Sensitive Species* – To be determined through the USACE permitting process.

*Waters of the US: Barren River* – There would be major, long-term impacts. The river flow will be affected by four drop structures. This activity will require a Department of Army (DA) Permit. The City will coordinate with USACE for all permitting and compliance measures required for the project.

*Water Quality* – There would be no impacts.

*Cumulative Effects:* The completion of the Whitewater Park project will bring thousands of visitors to Bowling Green to kayak, canoe, and swim. The Whitewater Park is but one component of the City of Bowling Green's Riverfront Park project, which will be a one-of-a-kind outdoor recreation adventure park unique to the region. The river will be made safer and more accessible by the implementation of four new drop structures and the removal of an existing rubble dam, benefiting both users and first responders.

*Impact Analysis and Conclusion:* There would be major, long-term positive impacts to minority and low-income populations, park visitors, the entire River Street corridor, and first responders. Minority and low-income populations along with park visitors would have new



## **City of Bowling Green, Kentucky**

### **Barren River Whitewater Park, Bowling Green, KY**

access to a non-traditional outdoor recreation opportunity. The project creates the opportunity to ignite interest in the revitalization of the River Street Corridor while also improving river access for first responders, which could help save lives. The actions described in this alternative do not adversely affect a resource.

#### **IV. COORDINATION**

The following agencies, organizations and persons were contacted for information or assisted in identifying important issues, developing alternatives or analyzing impacts.

Nicole Konkol – Kentucky Heritage Council Site Protection Program Administrator

Craig Potts – Kentucky Heritage Council, Executive Director & State Historic Preservation Officer

Matt Powell – City of Bowling Green, Environmental Manager

Rachel Hurt – City-County Planning Commission Senior Planner

Brent Belcher – City of Bowling Green Parks & Recreation Director

Michael Delaney – Bowling Green Police Department Chief of Police

Justin Brooks – Bowling Green Fire Department Fire Chief