



Land and River Trails Management Plan Newsletter – July 2023

Dear Friends,

In recent years, Mammoth Cave National Park has seen an increase in the popularity of its land and water trails. While this increase in use is a good thing—more people are discovering the above-ground wonders of this world-class park—the increased use also impacts park resources on the ground and in the cave. In fact, the park's hard-working trail staff have been unable to keep up with the wear and tear due to poor trail design and placement, increased trail use, and the intensified large group sizes. This means visitors often find trails that are wet, muddy, badly rutted, eroded, braided, and difficult to travel, resulting in reduced enjoyment of these recreational opportunities. Our river-based water trails are also sorely lacking in terms of providing intentional recreational opportunities.

We believe that we can do better. That's why we have started a process to develop a new land and river trails management plan for the park. The plan will ensure the long-term sustainability of our trails by providing strategic direction that guides trail maintenance, investment, and construction over the next few decades. Our goal is to develop a plan that preserves park resources and limits erosion while also providing increased access and more diverse opportunities to experience points of interest in the park.

My staff and I have done some preliminary work to get the planning process started, and we have been in conversation with trail user groups to better understand their interests, goals, and vision. That said, we are still in the exploratory phase of planning, and we are looking for your input. Your engagement is an essential component of this process. We invite individuals who are interested in the park's trails and rivers to engage in this conversation.

This newsletter describes the land and river trail management planning effort and provides an overview of progress to date, including a draft purpose and need for the plan, draft desired conditions for different trail categories, and some preliminary management concepts. These preliminary management concepts include strategies we would apply to the whole trail system and several proposals for new trail alignments, possible new connections to local communities, and other stewardship approaches. But we recognize that this plan can't be solely about adding new trails if we are to achieve a truly sustainable trail system. We are also considering decommissioning unsustainable trail alignments that are costly to maintain, that contribute to erosion and runoff, and that contribute to poor visitor experiences, and we are considering weather-related limitations on certain trail segments that are prone to erosion and damage during wet weather conditions.

This newsletter explains how you can provide feedback and participate in the development of the land and river trail management plan. This process is a multi-year effort, and your input will be invaluable as we continue to draft the plan and eventually develop an assessment of its social and environmental impacts.

By sharing your ideas and opinions about how the park should approach trail management, you can help us shape its future. Thank you in advance for your participation!

Sincerely,

Barclay C. Trimble

Purpose of the Park

The purpose of Mammoth Cave National Park is to preserve, protect, interpret, and study the internationally recognized biological and geologic features and processes associated with the longest known cave system in the world, the park's diverse karst landscape, the Green and Nolin rivers, and extensive evidence of human history, and to provide and promote public enjoyment, recreation, and understanding.

What is the Purpose of the Plan?

The plan aims to provide guidance for improving the conditions and sustainability of the above-ground land and water trail networks and to enhance the diversity and quality of visitor experiences while protecting the park's natural and cultural resources.

This plan is needed because:

- There is inconsistent trail design and maintenance standards across existing trails.
- Erosion, trail widening, and trail braiding detract from trail longevity and negatively impact natural and cultural resources.
- Visitor use conflicts and crowding on trails detract from high quality visitor experiences.
- There are limited opportunities for neighboring communities to access the park by multi-modal transportation.

The Park's Current Trail System

Currently, the park manages approximately eighty-two miles of land trails and thirty miles of water trails. The land trails are all open to hiking, while about seventeen miles are open to biking, and around fifty-three miles are open to horseback riding. There is just over a mile of ADA-accessible trails at the park.

The land trails are generally poorly designed, with many following old pre-park road alignments, and are susceptible to erosion, widening, and braiding. These unsustainable trails are difficult and costly to maintain. The park's water trails undergo crowding at boat launches and at key destinations.

Past Trail Planning

This planning effort builds on past plans, including the 1983 general management plan and the 2007 comprehensive trail management plan. Given the age of previous management plans for the trails and rivers, the deteriorating condition of the park's trail system, impacts to park resources, and the declining quality of trail users' experience, the National Park Service is initiating a new comprehensive plan that will guide trail management for the next few decades.

The land and river trail management plan is intended to improve access to high-quality land and river-based recreational opportunities for a diversity of trail users, including hikers, equestrians, mountain bikers, and paddlers.





Desired Conditions

Desired conditions outline the vision for resource conditions, visitor experiences and opportunities, and facilities and services that an agency strives to achieve and maintain in a particular area. Desired conditions help park managers answer the question, “What are we trying to achieve?” Desired conditions also articulate the kinds of experiences and opportunities that should be provided in different areas of the park.

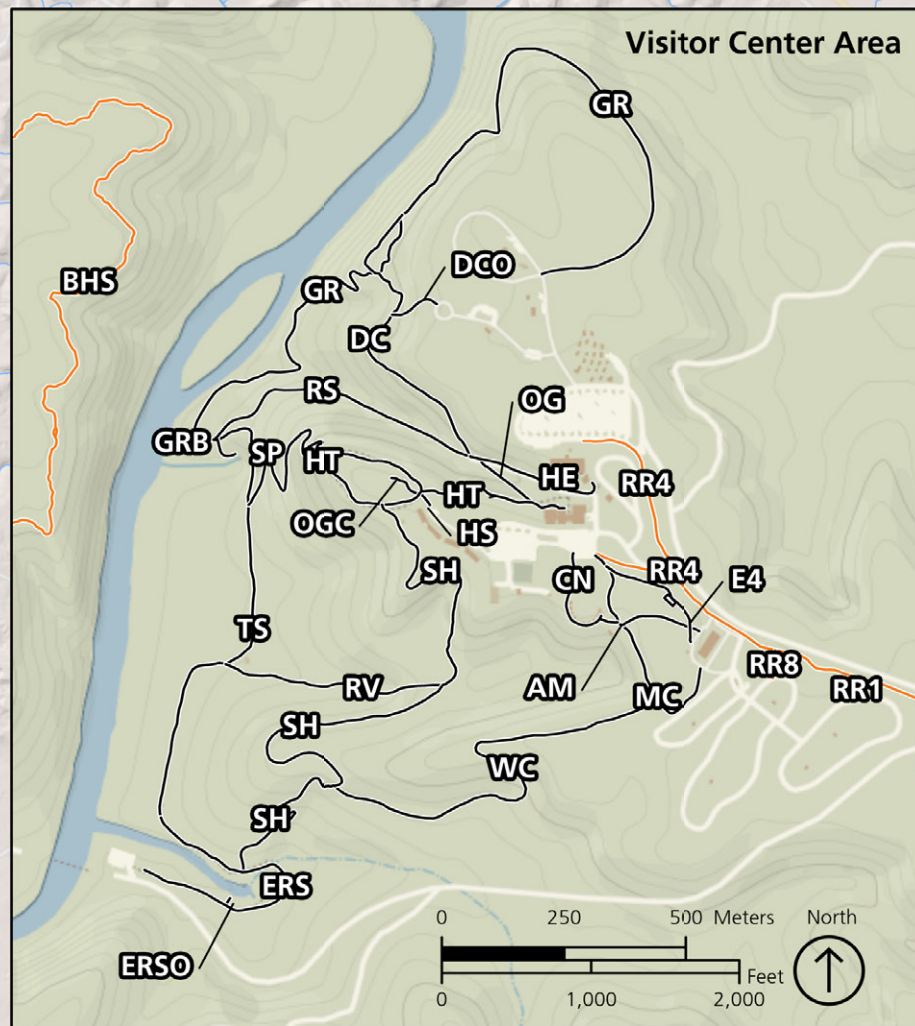
While the 1983 general management plan provides high-level guidance, park managers will need greater clarity for the trails in order to guide overall management of the system, strategy selection, visitor capacity analysis, and other key pieces of the land and river trail management plan. To help inform these desired conditions for the park’s trail system, park staff are interested in knowing what you value most about the park’s trails and in understanding your vision for the park’s trail system (see the questions under “We Want to Hear from You!”).

Water-Based Trail Categorization

Similar to the land-based trails, park staff have developed a preliminary system of categorizing segments of the Green and Nolin rivers to provide a diversity of experiences. Under this system, the park’s water trails (river segments) would be divided into three categories: high-, moderate-, and low-density water trails. Due to the dynamic nature of the rivers, the categorization would vary depending on the water level. The table below describes the three water trail categories and the management vision for each.

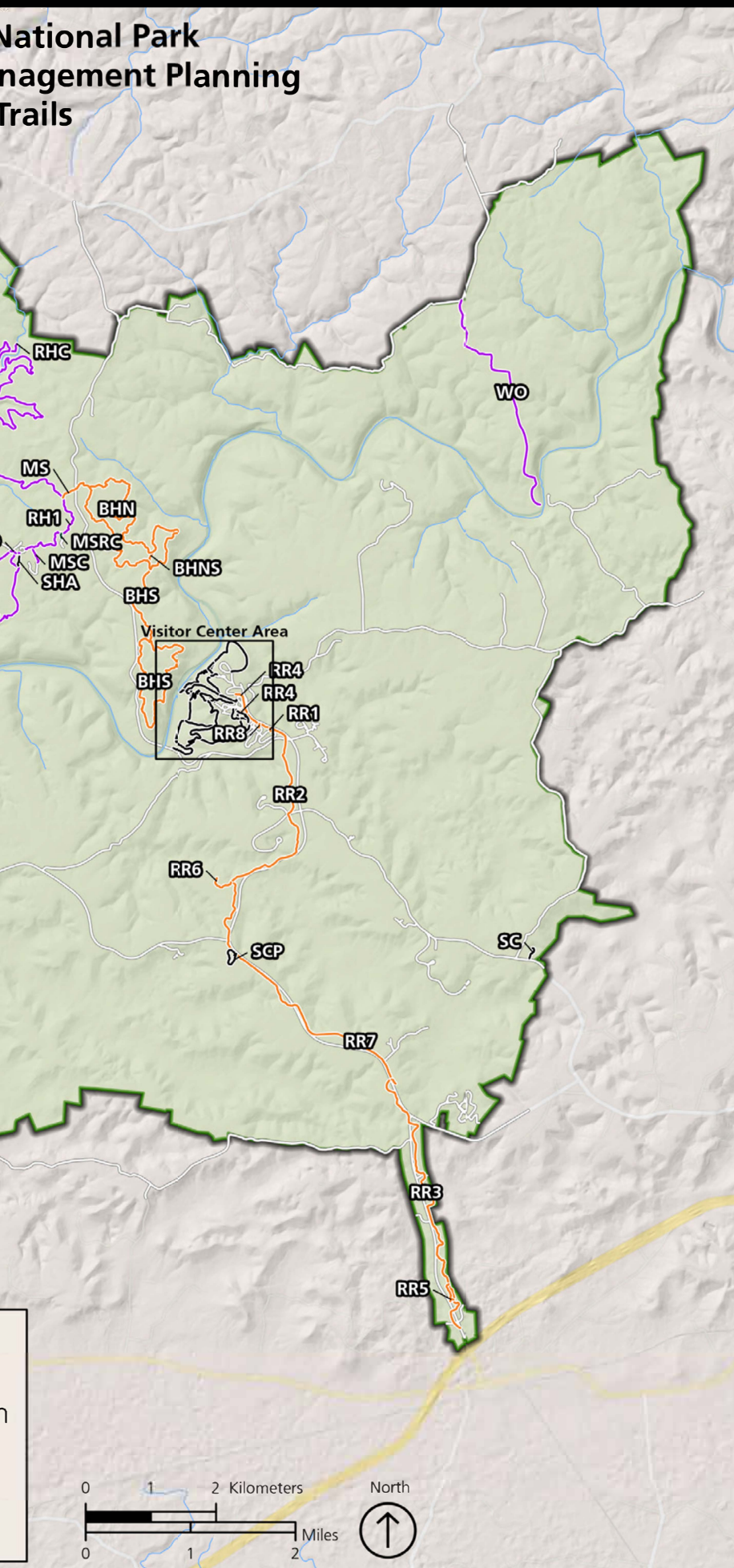
Water Trail Category	Description
High-Density Water Trails	River segments/conditions with a high density of visitor use are managed to provide a moderately social atmosphere. Visitors would need little to no paddling or boating skills to float successfully, as these segments generally do not provide a great degree of challenge.
Moderate Density Water Trails	River segments/conditions with a moderate density of visitor use are managed to provide some opportunities for solitude. Visitors would need paddling experience to float successfully, as these river segments provide a moderate degree of challenge.
Low-Density Water Trails	River segments/conditions with a low density of visitor use are managed to provide opportunities for solitude, remoteness, and connection with nature. Visitors would need some paddling experience and skill to float successfully, as these river segments provide a moderate to a high degree of challenge and a sense of adventure.

Mammoth Cave National Park
Land and River Trail Map
Existing Trails



-  Existing - Biking and Hiking
-  Existing - Hiking
-  Existing - Hiking and Equestrian
-  Existing - Unknown
-  Park Roads
-  Park Boundary

National Park Management Planning Trails

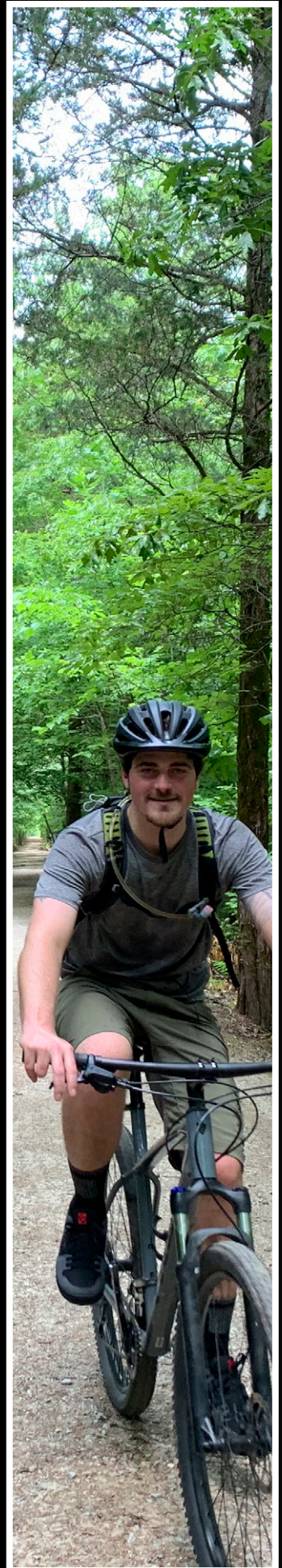


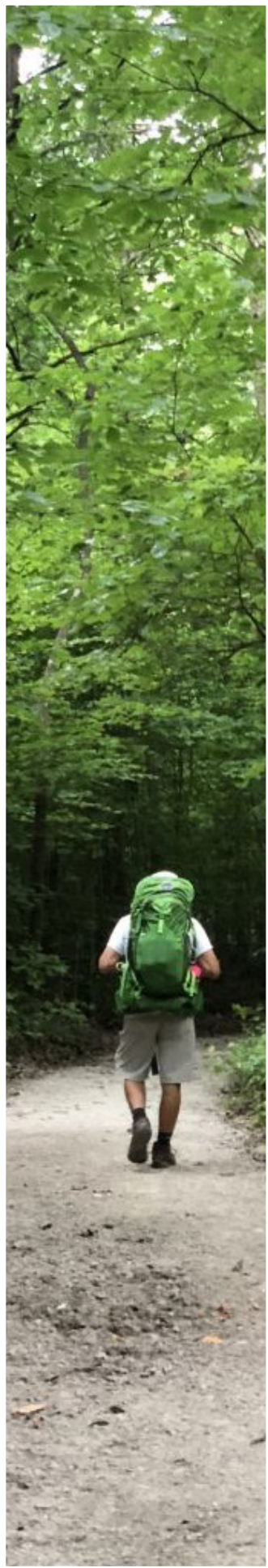
- AM - Amphitheater
- BCS - Bluffs Campsite
- BHN - Big Hollow N
- BHNS - Big Hollow N Shortcut
- BHS - Big Hollow South
- BSH - Blair Springs Hollow
- CN - Cabins
- CR - Collie Ridge
- CRC - Collie Ridge Campsite
- CS - Cedar Sink
- CSO - Cedar Sink - Owl Cave Sour
- DC - Dixon Cave
- DCO - Dixon Cave Overlook
- DP - Dry Prong
- E4 - Engine No. 4
- ERS - Echo River Spring Trail Paved
- ERSO - Echo River Spring Overlook
- FC - First Creek
- FC1 - First Creek Campsite 1
- FC2 - First Creek Campsite 2
- FCS - Ferguson Campsite
- GR - Green River Bluffs
- GRB - Green River Bluffs - Riverbank Spur
- HC - Homestead Campsite
- HE - Historic Entrance
- HS - Heritage- Sunset Lodge Access
- HT - Heritage
- MB - Mill Branch
- MC - Mammoth Cave Campground
- MD - Miles-Davis Cemetery
- MH2 - McCoy Hollow
- MH3 - McCoy Hollow
- MH4 - McCoy Hollow
- MHC - McCoy Hollow Campsite
- MS - Maple Springs Connector
- MSC - Maple Springs Campground
- MSRC - Maple Springs Research Center
- OG - Old Guides
- OGC - Old Guides Cemetery
- RH1 - Raymer Hollow
- RH3 - Raymer Hollow
- RHC - Raymer Hollow Campsite
- RR1 - MACA RR Bike and Hike- Loop B Spur
- RR2 - MACA RR Bike and Hike - North
- RR3 - MACA RR Bike and Hike - South
- RR4 - MACA RR Bike and Hike - Visitor Center Access
- RR5 - MACA RR Bike and Hike -South Entry Spur
- RR6 - RR B & H- Furlong Cemetery Spur
- RR7 - RR Bike and Hike- Locust Grove Spur
- RR8 - RR Bike and Hike - Loop A Spur
- RS - River Styx Spring
- RV - River Valley
- SB - Stables
- SC - Sand Cave
- SCC - Second Creek Campsite
- SCP - Sloan's Crossing Pond Walk
- SH - Sinkhole
- SHA - Sal Hollow Trail Alt Access
- SHC - Sal Hollow Campsite
- SHL - Sal Hollow
- SP - Sunset Point
- TB - Turnhole Bend
- TBN - Turnhole Bend Nature
- TS - Two Springs Trail
- TSC - Three Springs Campsite
- WC - Whites Cave
- WO - White Oak Trail
- WP - Wet Prong

Land-Based Trail Categorization

In order to provide a diversity of trail-based experiences and opportunities, park staff have developed a preliminary system of categorizing the land-based trails. The goal of categorizing the trails is to ensure that park visitors can find the experience they seek. The land-based trail categories include developed, moderately developed, semi-primitive, and primitive trails. These four trail categories represent a spectrum or continuum of possible trail user experiences, resource conditions, and physical trail attributes. The following table describes the four land trail categories and the management vision for each.

Land Trail Category	Description
Developed Trails	Hiking and biking trails with a high density of visitor use are managed to provide a low to moderate degree of physical challenge as well as a social atmosphere. Visitors are near developed areas, and little time commitment is needed. Resources may be negatively impacted by trail construction and trail-related erosion risk can be more readily mitigated with infrastructure. Trail surfaces will be hardened with pavement or gravel, relatively wide and flat in many areas, and include obvious trail structures such as bridges, stairs, and boardwalks where needed.
Moderately Developed Trails	Hiking, equestrian, and/or biking trails with a moderate density of visitor use are managed to provide a moderate to high degree of physical challenge and a moderately social atmosphere. Visitors are relatively close to developed areas, necessitating some outdoor skill, and would need to commit to an hour or two to visit. Trail construction may somewhat negatively impact resources, and erosion would not be tolerated due to difficulty with mitigation. Trail surfaces will be hardened with gravel, moderately wide and flat to rolling, and would include noticeable trail structures such as culverts and bridges.
Semi Primitive Trails	Hiking, equestrian, and/or biking trails with a low density of visitor use are managed to provide a moderate to high degree of physical challenge and opportunities for solitude. Visitors will be farther from development and immediate safety response, necessitating outdoor skill, and would need to commit to a few hours up to a full day to visit. Resources may be negatively impacted by trail construction and ongoing maintenance, and there will inevitably be some erosion due to the use and surface type, but not due to trail alignment. Trail surfaces will be the natural substrate, if possible, but other engineered surfaces may be used to ensure sustainability. Trails would be single-track width and flat to hilly, and trail structures such as culverts would be mostly unnoticeable to the average user.
Primitive Trails	Hiking-only trails with a low density of visitor use are managed to provide a moderate to high degree of physical challenge and ample opportunities for solitude. Visitors will be farther from development and immediate safety response, necessitating outdoor skill, and would need to commit to up to a full-day visit. Resources may be slightly negatively impacted by trail construction, and ongoing maintenance and erosion would be less likely on these trails due to the user type. Trail surfaces will be natural substrate, single-track width, and flat to hilly. Artificial trail structures would be virtually nonexistent, as logs and rocks are used for most stream crossings.





Preliminary Management Concepts

Proposed System-Wide Trail Improvement Strategies

Park staff are considering making improvements in the following areas. These improvements would apply to the whole trail system.

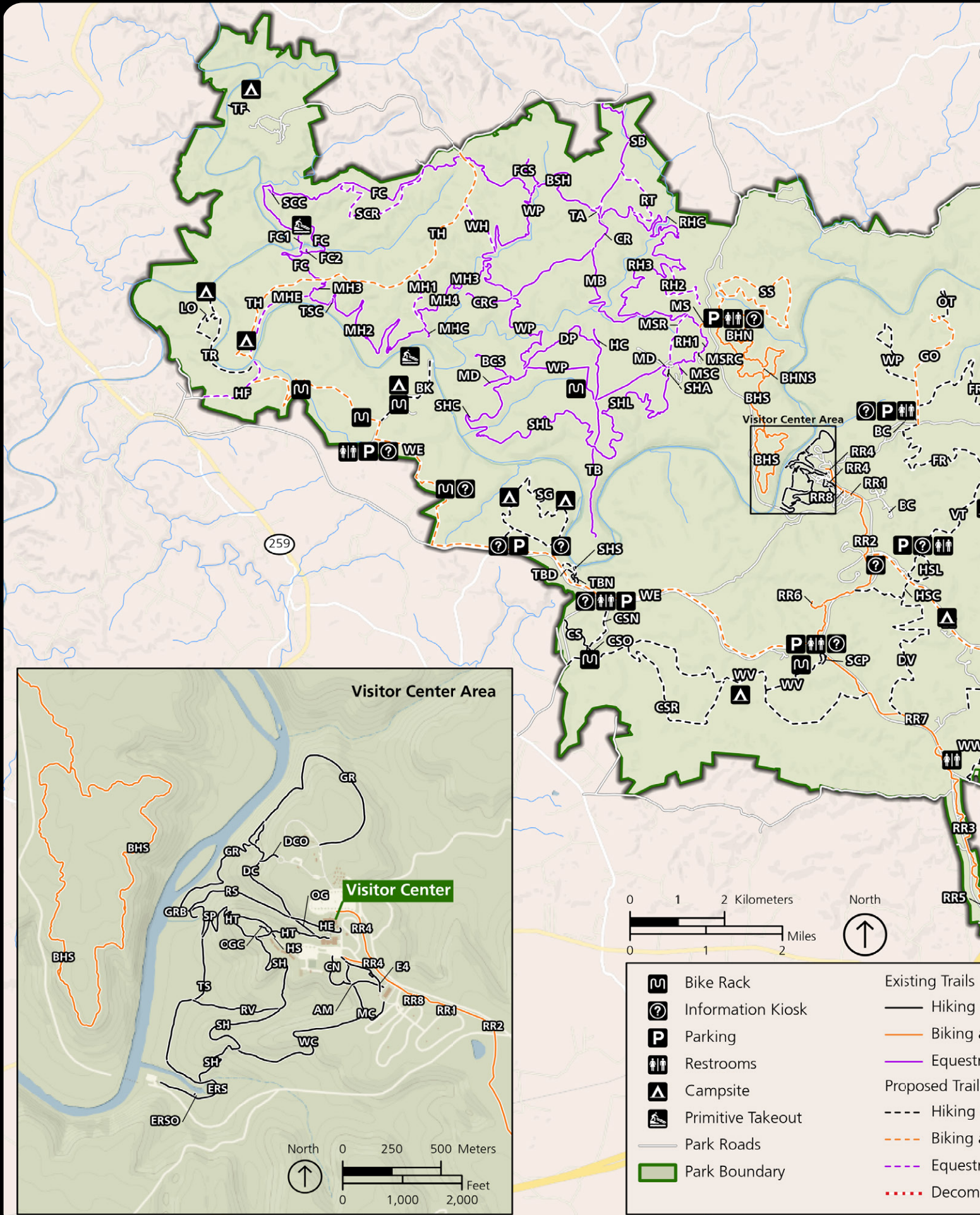
- Trail signage
- Soil moisture management and drainage control
- Accessibility
- Trail etiquette and leave –no-trace education
- Partnerships
- Invasive species management

Proposed Trail System Changes

Park staff are also considering new trail alignments to access points of interest and experiences that are not currently present in the trail system, such as waterfalls and scenic views. In addition to these new trails, park staff are considering decommissioning unsustainable portions of the existing system and implementing wet-weather management strategies that allow for use on hardened trails when other trail segments may be made temporarily unavailable. All trails will be evaluated for potential supporting infrastructure implementation or rehabilitation.

Each proposal is subject to available funding, financial viability, safety, and operational assessments at the park. Actions in this proposal focus on improving the overall sustainability of the trail system by ensuring resource protection and enhancing the overall visitor experience.

All new trails would be strategically aligned to ensure that they are built with sustainable grades and do not impede on or deteriorate sensitive park resources. The following map shows the existing trails alongside the proposed trail alignments, repairs, facilities, and closures under consideration. For more details and to view an interactive map please visit the project storymap at bit.ly/mammothtrailsmap.



Mammoth Cave National Park

Land and River Trail Management Planning

Existing Trails, Proposed Trails and Proposed Facilities



- | | |
|---|---|
| AM - Amphitheater | MSC - Maple Springs Campground |
| BC - Bransford Cemetery Trail | MSR - Maple Springs Road |
| BCS - Bluffs Campsite | MSRC - Maple Springs Research Center |
| BHN - Big Hollow N | OG - Old Guides |
| BHNS - Big Hollow N Shortcut | OGC - Old Guides Cemetery |
| BHS - Big Hollow South | OT - Orchard Trail |
| BK - Brooks Knob Road Trail | RH1 - Raymer Hollow |
| BSH - Blair Springs Hollow | RH2 - Raymer Hollow |
| CCR1 - Crystal Cave Road | RH3 - Raymer Hollow |
| CCR2 - Crystal Cave Road | RHC - Raymer Hollow Campsite |
| CN - Cabins | RR1 - MACA RR Bike and Hike- Loop B Spur |
| CR - Collie Ridge | RR2 - MACA RR Bike and Hike - North |
| CRC - Collie Ridge Campsite | RR3 - MACA RR Bike and Hike - South |
| CS - Cedar Sink | RR4 - MACA RR Bike and Hike - Visitor Center Access |
| CSN - Cedar Sink North Access | RR5 - MACA RR Bike and Hike -South Entry Spur |
| CSO - Cedar Sink - Owl Cave Spur | RR6 - RR B & H- Furlong Cemetery Spur |
| CSR - Cedar Spring Ridge Trail | RR7 - RR Bike and Hike- Locust Grove Spur |
| DC - Dixon Cave | RR8 - RR Bike and Hike - Loop A Spur |
| DCO - Dixon Cave Overlook | RS - River Styx Spring |
| DP - Dry Prong | RT - Ridge Top Trail |
| DV - Doyle Valley Trail | RV - River Valley |
| E4 - Engine No. 4 | SB - Stables |
| EE - East Entrance Trail | SC - Sand Cave |
| ERS - Echo River Spring Trail Paved | SCC - Second Creek Campsite |
| ERSO - Echo River Spring Overlook | SCP - Sloan's Crossing Pond Walk |
| FC - First Creek | SCR - Sugar Camp Road |
| FC1 - First Creek Campsite 1 | SG - Silent Grove Loop Trail |
| FC2 - First Creek Campsite 2 | SH - Sinkhole |
| FCS - Ferguson Campsite | SHA - Sal Hollow Trail Alt Access |
| FR - Flint Ridge Loop Trail | SHC - Sal Hollow Campsite |
| GO - Great Onyx Road Trail | SHL - Sal Hollow |
| GR - Green River Bluffs | SHS - Sandhouse Trail |
| GRB - Green River Bluffs - Riverbank Spur | SP - Sunset Point |
| HC - Homestead Campsite | SS - Sugar Sink Trail |
| HE - Historic Entrance | TA - Turnaround Trail |
| HF - Houchin Ferry Road | TB - Turnhole Bend |
| HS - Heritage- Sunset Lodge Access | TBD - Turnhole Bend Trail |
| HSC - Hunt Sink Connector | TBN - Turnhole Bend Nature |
| HSL - Hunts Sink Loop | TF - Triple Falls River Trail |
| HT - Heritage | TH - Temple Hill Multi-Use Trail |
| LL - Lick Log Nature Trail | TR - Two Rivers Trail |
| LO - Laurel Overlook Trail | TS - Two Springs Trail |
| MB - Mill Branch | TSC - Three Springs Campsite |
| MC - Mammoth Cave Campground | UC - Union City Trail |
| MD - Miles-Davis Cemetery | VT - Valley Trail |
| MH1 - McCoy Hollow | WC - Whites Cave |
| MH2 - McCoy Hollow | WE - West Entrance |
| MH3 - McCoy Hollow | WH - Wildcat Hollow Trail |
| MH4 - McCoy Hollow | WO - White Oak Trail |
| MHC - McCoy Hollow Campsite | WP - Wet Prong |
| MHE - McCoy Hollow Extension | WP - White Pine Trail |
| MS - Maple Springs Connector | WV - Woolsey Valley Trail |
| | WW - Wondering Woods Loops |

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Planning Process

Park managers and staff have done some initial planning work that you can review in this newsletter. Now, it's your turn! We want to hear from you before we develop a full plan and potentially start an assessment of social and environmental impacts. This will be the first of two opportunities for the public to weigh in during the planning effort. The complete planning schedule follows, with opportunities for public input in bold.

Activity	Timeline*	Purpose
Preliminary planning	Summer/fall 2022	Develop draft purpose, need, and trail categorization.
Preliminary management concepts	Winter/spring 2023	Gather input from trail users and community groups and develop preliminary management concepts based on this input.
Public feedback	Summer 2023	Get feedback from the general public on the preliminary planning elements and management concepts
Prepare land and river trail management plan and environmental assessment	Spring 2024	Based on public feedback, develop a draft land and river trail management plan and prepare an environmental assessment of potential impacts.
Public review and comment on land and river trail management plan and environmental assessment	Fall 2024	Gather public comments on the plan and ensure environmental assessment accurately analyzes impacts.
Prepare decision document	Winter 2024	Respond to and incorporate public comments and record the final decision for eventual implementation.
Plan implementation	Spring 2024 and beyond	Construct trails and implement management strategies as identified in the plan.

**Subject to change due to unforeseen circumstances.*

WE ARE
HERE!

WE WANT TO HEAR FROM YOU!

Park managers and planners are excited to hear your thoughts on the work completed. We welcome and value your thoughts and ideas. In particular, we are interested in hearing about the following five points. You can use this as a guide while preparing your comments.

1. What do you think of the plan's purpose, as described in the newsletter? Are there any trail-related issues we should address in the plan? Are there any opportunities we should be sure to take advantage of?
2. Think about a favorite trail in the park or consider your "dream" Mammoth Cave trail. What do you value most about that trail, and why is it important? What about it should be preserved for current and future generations? What makes it unique from other trail-based experiences you can have in the region?
3. Consider the spectrum of opportunities described in the land-based and water-based trail categorization. Which categories would you be most interested in using, and why? Which categories would you like to see more of in the park?
4. Consider the proposed trail system changes. Which of the proposed new trails are of greatest interest to you? Are there any proposed changes to the system that concern you? Please be as specific as possible when referring to a trail and use the trail identifier shown on the StoryMap if possible.
5. Should we consider anything else while developing the land and river trail management plan and environmental assessment? Are there any potential social or environmental impacts we should evaluate?



Photo credit: Sarah Davis

The best way to provide feedback is by visiting the park's planning site at <https://parkplanning.nps.gov/MammothTrails> or by scanning the QR code. We are accepting comments from July 25 through August 25, 2023.



WANT TO LEARN MORE?

If you are interested in learning more and chatting with park staff working on the plan, there will be two public meetings for you to do so (see the following table). These meetings aim to share information about the plan and planning process, answer questions from the public, and informally gather feedback and perspectives. They will be open-house format, and you are welcome to come and go anytime. The planning team will have posters available and will happily answer any questions, listen to your thoughts, and discuss the plan with you in an informal setting. Please consider joining us for one or both of these meetings.

August 1, 2023

4-6 pm

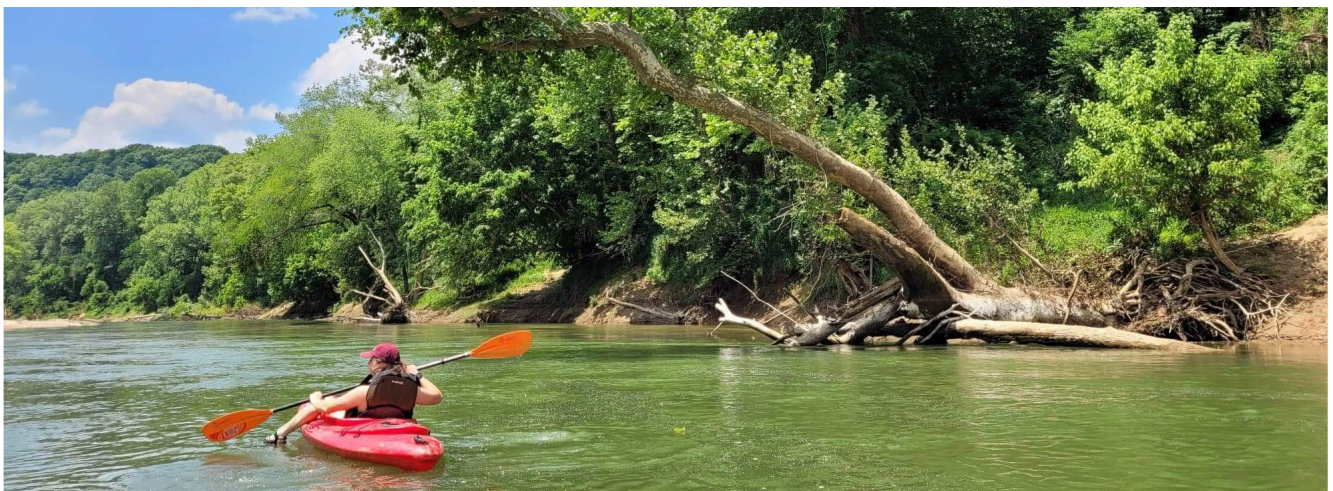
**Warren County Library, Bob Kirby Branch
175 Iron Skillet Court
Bowling Green, Kentucky 42104**

August 3, 2023

4-6 pm

**Edmonson County Library,
280 Ferguson Street
Brownsville, Kentucky 42210**

If you want to learn more about the planning effort with the convenience of doing so anytime from anywhere, you can view a recorded presentation describing key aspects of the project by visiting <https://youtu.be/01qJcgmTsko>. Lastly, you can explore the interactive map of proposed trails at the project storymap, available at bit.ly/mammothtrailsmap.



QUESTIONS?

If you have questions about this plan or upcoming public meetings, please email the park at maca_superintendent@nps.gov.

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