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### Wrapping Up Green Heart Planting

We passed an important milestone this past summer with the Green Heart Louisville project—we completed the tree planting. While we still have lots to do to keep the trees healthy, this is a big step forward in one of our most complex and innovative projects. I am proud of our work—and so grateful to our many partners and contractors who share in this success.

Without our donors, who gave more than \$8 million to green this community, we could not have come this far. Without the support of the Green Heart community itself, we would have no project to complete.

Read on to learn more about the important partnerships that led us to this point.

Sincerely,

A handwritten signature in black ink that reads "D. Phemister".

David Phemister  
Kentucky State Director



TNC's partner, Carl Ray Landscape Nursery, plants large trees along a busy highway in the Green Heart project area. © Mike Wilkinson

## Green Heart Plantings

### A big step forward

In the fall of 2017, The Nature Conservancy and its partners announced the launch of a visionary, first-of-its-kind project to measure the human health benefits of increased urban greening. The brainchild of researchers Dr. Aruni Bhatnagar and Ted Smith and philanthropist Christina Lee Brown, the project quickly identified a need for a planting partner. TNC was in from the very beginning. But it took a long time before we were ready to plant trees, and then COVID hit. Patience and persistence are a big part of the Green Heart story.

With planting now complete, the focus turns to tree maintenance and back to the clinical research on community health benefits. The University of Louisville Envirome Institute is already beginning to publish its work on baseline community health characteristics, and we expect to have the final round of preliminary results in the fall of 2023. Our partners at Washington University in St. Louis remain hard at work on environmental monitoring

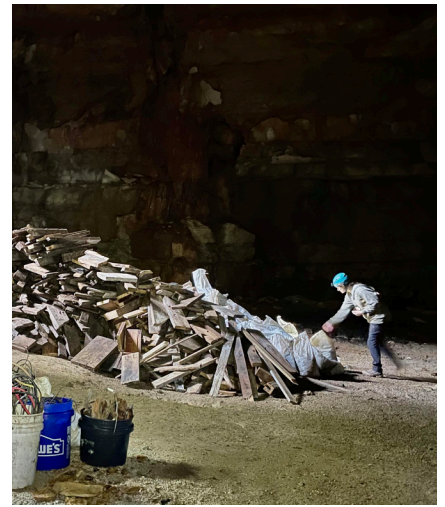
and will publish a series of papers from air pollution studies.

Planting for the project is impressive all by itself. With our partners Louisville Grows and Government Solutions and Services and numerous professional contractors, we planted trees and shrubs in residents' yards, along city streets, on commercial properties, and on both sides of the sound wall along a stretch of Interstate 264 in South Louisville. Many of these trees are massive, with root balls weighing several tons. And none of this work took place in a controlled environment, with weather, permitting, approvals, supply chain issues, and unmapped utilities among the field challenges.

"Touring the Green Heart neighborhoods, I am humbled by the progress we have made," says Kentucky state director David Phemister. "I am so grateful for the expertise and commitment of all the folks who worked so hard to make this project a success."



The cave cleanup partners removed an enormous amount of debris, clearing the way for better bat habitat. © Bob Roth



A volunteer adds to the cleanup pile. © Bob Roth

# Coach Cave Cleanup

## Working together to revitalize bat habitat

In 2017, The Nature Conservancy acquired the largest easement in chapter history, protecting Coach and James caves in Edmonson and Barren counties, along with the surrounding forest. Together, the property spans nearly 500 acres. A few years later, TNC acquired the area outright, further protecting the caves and the wildlife that depend on them.

For many years, these caves were used commercially, hosting visitors near Mammoth Cave National Park. As a result, there is infrastructure in the caves such as electrical lines and wooden building materials. TNC recently joined a 16-person, two-day effort to clean up Coach Cave for the benefit of thousands of endangered bats that use it for hibernation. “These hibernacula are so important,” says Danna Baxley, conservation director for the Kentucky chapter. “It’s

a concentrated place where bats come for the winter. What’s really special about the property is that it’s forested, so it provides the foraging habitat that endangered bats like gray and Indiana bats need. And it’s adjacent to Mammoth Cave National Park—it’s got a big network of protected lands right nearby for these bats.”

**The bottom line is, if you have a lot of debris in a cave, it’s not just litter; it can affect air flow.**

*Danna Baxley*

The partners came together as a group and formed a long line, passing pieces of litter to each other from deep within the caves to a centralized location near the cave entrance. The conservation group James Cave Project has been mapping and cleaning the caves for years,

coordinating opportunities for the larger conservation community to help. At the end of the cleanup, there was a huge debris pile and a much cleaner cave.

“The bottom line is, if you have a lot of debris in a cave, it’s not just litter; it can affect air flow,” says Baxley. “Any time you can get a cave back to its natural state, it’s a big win.”

### Cave Cleanup Partners

James Cave Project  
U.S. Fish and Wildlife Service  
Kentucky Department of Fish and Wildlife Resources  
National Park Service  
Kentucky Bat Working Group  
Stantec  
Bernheim Forest  
Copperhead Consulting  
ECT, Inc