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Josh Lillpop of the Kentucky State Nature Preserves Commission works with The Nature Conservancy on a prescribed burn. © Mike Wilkinson

Partnering for Fire

New collaborations increase prescribed fire capacity

Leveraging resources with partners is one strategy that has made The Nature Conservancy so effective. This year's prescribed fire season in Kentucky provides a perfect example.

Prescribed fire is a cost-effective conservation tool. New and recently strengthened partnerships between TNC and state and federal organizations have resulted in greater capacity for all.

"It's a matter of identifying the challenges, and then leveraging personnel, equipment and funding with our partners. That makes us all more efficient and successful," says Chris Minor, director of land management and fire manager for The Conservancy's Kentucky chapter. "There's recognition among agencies and organizations that none of us has the ability to meet the prescribed fire need if we work alone. So, we combine all of our people to maintain the fire management we need."

One of TNC's newest prescribed burning partners is the Kentucky Division of Forestry (KDF). An agency with a great deal of experience in wildland firefighting, the KDF hadn't



Prescribed burns require careful planning. © Mike Wilkinson

used prescribed fire as a management tool until recently. For the 2018 season, the agency contributed to prescribed fire accomplishments throughout Kentucky by dedicating staff members and two fire engines. This commitment was made possible with funding from TNC and the U.S. Forest Service.

"The partnership allowed us to work with TNC on several fronts," says Brandon Howard, a branch manager with the KDF. "We got more experience with prescribed fire by working on burns with TNC. It also opened the door for TNC to have a wildfire management opportunity here in Kentucky. It's really a mutual benefit."

By collaborating with the KDF and other partners, TNC set a record for prescribed fire this year.

"The Kentucky chapter's prescribed fire record, including burns that we led or assisted on, was about 5,000 acres in one year," says Minor. "This year we hit 12,200 acres. We are thrilled with the management and restoration we accomplished with our partners."



A five-year, \$1.36-million study will look at the science behind wetland restoration. © Todd Winters

Studying Restored Wetlands Five-year monitoring project begins

The Nature Conservancy and its partners have protected more than 6,500 acres of wetlands in west Kentucky since 2011. What effect do these restoration efforts have on water quality? How much nutrient pollution is this work keeping out of the Mississippi River? A new, five-year monitoring study aims to answer those questions.

The Conservancy entered into an agreement in the fall of 2017 with the Natural Resources Conservation Service (NRCS) for a \$1.36-million project to study the effects of this wetland restoration work. The partners have chosen Murray State University to do the monitoring work.

"Although this project will measure a variety of water quality and wildlife response parameters, our main focus is measuring nutrient removal," says Shelly Morris, the

We're hoping to have useful science to help refine, improve and support the work we're doing.

Shelly Morris, West Kentucky Project Director

Kentucky chapter's west Kentucky project director. "We take these frequently flooded places out of agriculture, plant trees, and if possible, restore the hydrology. In some cases we plug ditches that were

installed decades ago to drain the land. What impact is all this work having on reducing nutrient pollution?"

The monitoring project will study the restored wetlands' potential to reduce nitrogen and will measure water and soil quality. Murray State will also look at the impacts of these restoration efforts on wildlife. Clarifying the effects of restoration will help TNC and its partners conduct better restoration in the future and may help secure funding for future projects. "It's one thing to track acres and dollars, but we need to have a better understanding of the science," Morris says. "We're hoping to have useful science to help refine, improve and support the work we're doing."

NATURE KENTUCKY

Fighting Wildfire

When needed, the Kentucky chapter contributes staff time to help fight wildfires in Kentucky and the western United States. In the west, these fires are often caused by lightning strikes combined with dry late-summer conditions. Conservancy staff work alongside federal and state partners such as the U.S. Forest Service and state forestry agencies.

The Kentucky chapter's expertise with prescribed fire—a management tool that can prevent or lessen the intensity of wildfire—represents a valuable skill set for TNC and its partners. Wildfire training and experience is required to become a prescribed fire burn boss.



Firefighters are briefed in Montana. © Chris Minor

"In 2017, we contributed 31 staff days to wildfire suppression in western Montana," says Chris Minor, the Kentucky chapter's director of land management and fire manager. Conservation practitioner Zach Pickett also traveled to Montana to help.

"My assignment involved coordinating multiple equipment types and firefighters for 'initial attack,' working to keep fires as small as possible," Minor says. "Zach joined a 20-person crew on a large fire incident with hundreds of other firefighters."

Minor says he looks forward to helping TNC partners again in future fire seasons while gaining valuable experience that can be applied to conservation in Kentucky. "We are proud to be part of these efforts to protect people and nature," he says.



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