



Cover crops secure soils on farmland in the Mississippi River Basin. © Zach Luttrell/TNC



Water finds its natural path on former farmland at the Middle Fork Bottoms Recreation Area. © David Blackwood

Floodplains and Farmlands

In contrast to the mountains in the eastern part of our state, West Tennessee is shaped by water, specifically by the Mississippi River's many tributaries and vast floodplains. These watersheds support farming, commerce, wildlife and drinking water for 20 million people. However, a century of altering the river to accommodate a growing population and the mounting effects of climate change are compromising this ecosystem. We are working with colleagues in Kentucky and partners around Tennessee to promote a healthy and connected natural landscape that stores and filters waters to prevent floods, prepare for drought and reduce pollution reaching the Gulf of Mexico. Infusing nature into this globally important region represents the most effective way of preparing for challenges ahead.

VISIT nature.org/tngiving to donate toward conserving floodplains and farmlands in West Tennessee.

Floodplains

Rebuilding a Green Infrastructure

Last November, The Nature Conservancy and partners formed the West Tennessee Floodplain Task Force to develop a comprehensive plan for restoring our state's portion of the Mississippi River floodplain over the next decade. The group is coordinating resources to restore floodplains, forests and streams that can support wildlife, agriculture, industry and local communities.

TNC is also working on pilot projects that serve as a proving ground for conservation at a larger scale. For example, in the Hatchie River—the longest free-flowing tributary of the lower Mississippi—TNC is working with the U.S. Army Corps of Engineers and the West Tennessee River Basin Authority on restoring aquatic habitat and reconnecting a 1.5-mile portion of Piney Creek with the larger floodplain. The intended result of this project is the addition of natural filters that trap soil and nutrients and slow the flow of water to minimize downstream flooding.

“Success hinges on sum of many parts—namely 31 states dependent on the health of the Mississippi River Basin.”

Shelly Morris, TNC's director of floodplain strategies in Tennessee and Kentucky

Acquiring lands that are key to restoring and reconnecting portions of the floodplain also accounts for TNC's work in West Tennessee. And we are encouraging West Tennessee landowners to consider participating in programs like the Wetland Reserve Enhancement Partnership, known as WREP, which provides financial incentives for farmers who take frequently flooded lands out of agricultural production. These efforts to restore the region's natural wetlands and bottomland hardwood forests will be key to realizing a healthier and connected Mississippi River floodplain.

From the Field

Holt Shoaf grew up hunting and fishing among the bottomland forests and Obion River in West Tennessee. As an adult, he has been conserving the ground that he farms—for cotton, corn, soybeans and wheat—for more than a half-century. In addition to farming, Holt has also served as a valued member on The Nature Conservancy's Tennessee board of trustees since 2016. His input is invaluable to TNC's work on restoring floodplains and engaging farmers in West Tennessee.



© Courtesy/Holt Shoaf

“Some people might drive by and only see a swamp infested with mosquitoes or snakes. But, thanks to the work of The Nature Conservancy, I see an area recovering from channelization and siltation. I have witnessed this ecosystem transform from native forest and wetlands, to a dug canal, and back to a functioning, meandering river that supports eagles, otters and waterfowl year-round.”



TNC and partners reach out to West Tennessee farmers. © Zach Luttrell/TNC

Farmlands

Protecting Nature and Productivity

In Tennessee, where nearly half of the land is farmed, agriculture creates an economic impact that exceeds \$50 billion annually and supports more than 200,000 jobs. That is an enormous footprint—especially in West Tennessee where most of the state's row crops are grown. Restoring and connecting natural habitats here is challenging but necessary for fortifying the region against flooding, drought and other impacts of climate change.

One way that West Tennessee farmers can incorporate nature into agriculture operations while gaining a competitive edge is no-till planting, where advanced tools and techniques make it possible to place seed into the ground with minimal disturbance to the soil. Another practice that benefits farmland and the natural environment is planting cover crops, which are cold-tolerant species established between growing and harvesting seasons. Both practices promote higher quality soils that are good for crops while preventing erosion, sequestering carbon, and storing and filtering water. They also represent topics that are front-and-center for a new On Farm Demonstration project that is convening a dozen farmers to exchange information about economic outcomes of practices that benefit lands, waters and wildlife.

Success for nature and agriculture in West Tennessee hinges on overcoming short-term economic and technical hurdles that might stand in the way of putting nature to work on behalf of floodplains and farmlands. TNC is working with universities, public agencies, the agriculture industry, farm groups and others to provide technical support and identify new funding vehicles. The ultimate goal is to minimize risk as farmers increasingly transition to practices that will ensure that future generations have healthy and productive land to farm.