NATURE MISSOURI
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Adam McLane © Dana LePoidevin

***Transform:* to make a thorough or dramatic change in form, appearance or character.**

You will see the word "transform" used throughout this update. To me, it means more than just a change in form or appearance. It means a shift in thinking and implementing how we manage our natural resources—for nature and people.

It's becoming more critical that our work demonstrate this thinking of transformational solutions so we can have the biggest impact and return on our investment—and the investment of our supporters.

TOGETHER, WE CAN CHANGE THE WORLD.

Adam McLane,
Missouri State Director

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Construction began in December 2017 on the Elk River streambank stabilization project. © Kristy Stoyer/TNC

A Bioengineered Streambank

Using nature to protect our streams

Imagine standing at the edge of your property and literally watching it wash away. That is the reality for many landowners—not only in Missouri, but across the country. Beyond the loss of land, eroding streambanks are among the biggest threats to our rivers and streams—dumping millions of tons of sediment and pollutants into the water, which harms people and aquatic communities alike.

This project is intended to help transform how streams are managed for people and nature.

Drew Holt, Western Ozark Waters Coordinator

In McDonald County, we are implementing a nature-based bioengineering technique in an attempt to stabilize an extremely unstable and eroding 1,800-foot reach of streambank on the Elk River.

Upstream changes in land use and increased heavy rainfall events have accelerated the pattern of significant erosion to the streambank—resulting in an estimated 150,000 tons of soil lost from the site in the past 20 years. These lost soils flush into the Elk River system, damaging the recreational asset of Lake St. Clair, increasing stress on downstream infrastructure, and diminishing the aquatic habitat that many freshwater species rely upon.

The techniques being tested along the banks of the Elk can be replicated to provide solutions for landowners across the state and are a critical tool for a sustainable Missouri.

"This project is intended to help transform how streams are managed for people and nature," says Drew Holt, the Conservancy's Western Ozark Waters Coordinator. "Sound science and engineering practices, combined with innovative soil and water conservation strategies, will help advance learning and techniques surrounding streambank stabilization and restoration practices locally and statewide," Holt adds.

Learn more at **nature.org/mofreshwater**

Queeny Park tree planting in St. Louis. © Amy Helper Welch/TNC

Healthy Cities

Bringing nature's power into cities

In 2008, for the first time, there were more people living in cities than in rural areas. By 2050 it's expected that nearly 70 percent of the population will reside in urban areas. This historic urban growth, coupled with a changing climate, challenges us to team up with communities and partners to ensure that cities are resilient, equitable and sustainable—for both people and nature.

"Many of the crises we're facing on the planet are driven by human behaviors, meaning that the solutions to these challenges will also be driven by human behavior," says James Cole, Director of Conservation Programs in Missouri. "We need to engage with big communities to catalyze big solutions."

In St. Louis, we've invested in a Cities Program Manager whose initial focus includes green infrastructure demonstrations—prioritizing on stormwater retention and Mississippi River nutrient reduction—while maximizing benefits to underserved neighborhoods within the city, thereby helping create more resilient urban communities. "St. Louis sits at the confluence of two of the biggest river systems in the country and as so, we are uniquely positioned as a city to invest in practices that reduce the nutrients that flow into these systems," says Cole.

We need to engage with big communities to catalyze big solutions.

James Cole, Director of Conservation Programs

These are complex challenges that combine environmental, social and economic stresses; and we know that we don't have all the answers. "There is already great work under way in St. Louis, and we are excited to bring our science to the table to collaborate with partners and catalyze transformational change," says Cole. "Additionally, the Conservancy has incredible cities projects in action across the country that we can draw from." Likewise, the work we do in St. Louis can be used to advance these same strategies in cities and communities across the state.

Read more at **nature.org/mocities**

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Farming's Future

As world population and food production demands rise, how we manage that production becomes increasingly important. Agriculture covers over two-thirds of Missouri's landscape, and at $88 billion a year, it's our state's biggest industry and economic driver. By 2050, the global demand for food is expected to rise by 60%—which we'll need to meet with less water input and fertilizers, and without expanding agriculture's footprint.

View of Dunn Ranch Prairie from the new property. © Kristy Stoyer/TNC

Until now, our grasslands work mainly focused on projects like Dunn Ranch Prairie—a highly biodiverse restored prairie in Harrison County teeming with birds, pollinators and wildlife. And while that work remains an important part of our strategies, we see the potential in using our science to help transform how agricultural lands are managed.

We recently purchased a 217-acre farm adjacent to Dunn Ranch Prairie with such transformation in mind. Historically operated as a cattle operation and homestead, we will use the land to test new approaches, create strategies and learn. With partners, we will explore sustainable agriculture strategies and nature-based solutions, hoping to find a balance between farm economies and natural resource protection. Like all our "transform" oriented projects, we will broadly share the learnings that come from both success and failure.

Our hope and vision: that new practices and research from this site—paired with those generated by Dunn Ranch Prairie—help shape our farms of the future.

Learn more at **nature.org/moag**

The Nature Conservancy

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