Mitigation Matters: Policy Solutions to Reduce Local Flood Risk

This brief is one of 13 that examine state and local policies that have resulted in actions to mitigate flooding.

A woman walks near a wetlands park next to the William J. Clinton Presidential Library and Museum on May 13, 2015, in Little Rock, Arkansas. The state offers a tax credit to private landowners to restore, create, and enhance wetlands in an effort to lessen the impact of flooding.

Arkansas Tax Credit Rewards Landowners for Conserving Wetlands

State incentive is helping to mitigate seasonal flooding

Overview

Since the 1780s, Arkansas has lost more than 70 percent of its wetlands, making it harder for the state to combat seasonal floods along the Arkansas and Mississippi rivers that have worsened in recent years. Arkansas's ability to protect these areas is limited because many wetlands and riparian zones—the areas bordering rivers and streams—are privately owned. But a state tax credit, first instituted in 1995 and expanded in 2009, has helped to stem the loss of these critical landscapes.

The incentive applies to landowners who restore, enhance, or create wetlands on their property or who donate parts of wetlands and/or riparian zones to the state.[1] Since 1995, the state has approved over $4.5 million in tax credits for projects to protect or create wetlands and riparian zones.[2]

Shrinking wetlands leave state more vulnerable to floods

Arkansas has struggled with wetland erosion and flooding for decades. Before the late 17th century, when Europeans came to what would eventually (in 1836) become the state of Arkansas, wetlands encompassed about 30 percent of the area—more than 9.8 million acres.[3] Typically known as swamps or marshes, these areas trap stormwaters—and associated sediment and pollution—and slowly release the filtered water across the flood plain.

By the mid-1980s, however, wetlands made up only 8 percent of the state because of land development and other factors.[4] According to a 1990 report to Congress, Arkansas lost more wetland acreage from the 1780s to the 1980s than any other inland state in the U.S.[5]

That loss of wetlands has made the state more vulnerable to flooding. In 2011, flooding affected Arkansas on a historic scale, with rainfall swelling a number of streams to record high levels. Levees collapsed, allowing the Black and White rivers to flood a number of communities.[6] The state also saw catastrophic flooding in 2013 and 2016, but the problem dates back to the great floods of 1915 and 1927, when heavy rainfall inundated towns and damaged a significant amount of the state's crops and livestock.[7]

State plan, task force lead to tax credits to restore wetlands

In 1969, the General Assembly tasked a state commission with developing a master plan for conserving Arkansas's water resources. The plan was released in 1975, and when it was updated in 1990,[8] it noted that floodwaters and impaired drainage were harming the state's agricultural production and recommended that the commission address these impacts and help those affected.

In 1993, then-Governor Jim Guy Tucker created the Water Resources and Wetlands Task Force to evaluate the state's policies governing wetlands. It recommended taking actions to conserve these valuable areas,[9] including offering a tax credit for landowners who preserve, restore, or create wetlands or riparian zones.[10] These areas also absorb excess water and help to prevent the banks of rivers and streams from eroding.

On March 8, 1995, the General Assembly adopted the task force's recommendation when it passed the Arkansas Private Wetland and Riparian Zone Creation and Restoration Incentives Act.[11] The act allowed landowners in the state to apply for up to $50,000 in income tax credits in return for creating and preserving these natural features on their properties.

In 2009, lawmakers expanded the provision to give tax credits to landowners who donate wetlands and/or riparian zone land to the state.[12] Landowners can apply for these "conservation tax credits" in an amount equal to half of the fair market value of the donated property, but the credits cannot exceed $5,000 per year or a total value of $50,000 over a 10-year period.[13]

Over $4 million in tax credit projects approved

The Arkansas Natural Resources Commission (NRC) issued $4.2 million in tax credits through December 2018, according to the Arkansas Department of Finance and Administration, for projects to restore or protect wetlands and land next to rivers and streams. The projects have helped to control flooding in those areas by slowing the speed and volume of floodwaters. The NRC, which approves the tax credits and administers the program, continues to promote it at local and state meetings.[14]

Oregon Adopts Similar Tax Credit to Conserve Land Next to Rivers and Streams

Oregon has a similar tax credit for landowners who preserve and maintain riparian zones, although it operates differently. As of June 2016, Oregon's Riparian Tax Incentive Program has conserved about 1,457 acres of land along 99 miles of streams.

Adopted in 1981 and administered by the Oregon Department of Fish and Wildlife (ODFW), the program offers a property tax exemption for landowners who improve or maintain land within 100 feet of a stream. However, the exemption is limited to 200 miles of stream bank in any county each year, which discourages large property owners—including cities—from participating.

According to the governor's tax expenditure reports for 2015-19, the state has issued $300,000 biennially in income tax credits under the program.

Sources: Oregon Department of Fish and Wildlife, "Riparian Lands Tax Incentive," accessed July 15, 2019, https://www.dfw.state.or.us/lands/tax_overview.asp; Oregon Department of Revenue Research Section, "State of Oregon Tax Expenditure Report: 2017-2019 Biennium" (Oregon Department of Administrative Services, 2016), https://www.oregon.gov/DOR/programs/gov-research/Documents/full-tax-expenditure_2017-19.pdf.

Although landowners throughout the state have used the tax credits to restore wetlands, counties surrounding the Little Red River, downstream of Greers Ferry Lake dam in northern Arkansas, have participated the most.[15] Since 1962, hydropower releases from the dam had caused fluctuations in the river's flow downstream, causing the banks of streams to erode and contributing to flooding. In these areas, awareness of the program has spread largely by word of mouth, complementing the government's local outreach efforts.[16]

The program does have some limitations. The credit can be used only to offset an individual's income tax liability, and some residents—farmers, for example—pass on using the program because the financial incentive isn't large enough to warrant the effort to participate.[17]

In addition, some landowners might receive funds from other tax incentives, such as credits for controlling polluted runoff on farmland, making them less motivated to apply for the wetlands/riparian zone tax credit.[18] That said, the credit can be combined with other incentives in some circumstances. And demand to use the credits continues to rise. In the program's first year, the NRC approved less than $65,000 in projects. That amount grew to $465,000 in 2017, and flooding of the Arkansas River in late spring of 2019 shows the need for more mitigation has never been greater.

Conclusion

Arkansas's program shows how state governments can effectively use financial incentives to encourage taxpayers to reduce their flood risk. In the case of this tax credit, wetlands are being created, restored, or conserved, to not only mitigate flooding, but also to provide habitats for wildlife and improve the state's water quality.

"Mitigation Matters: Policy Solutions to Reduce Local Flood Risk" examines policies in 13 locations: Arkansas; Brevard, North Carolina; Fort Collins, Colorado; Indiana; Iowa; Maryland; Milwaukee; Minnesota; Norfolk, Virginia; South Holland, Illinois; Vermont; Washington state; and Wisconsin.

To prepare the briefs, The Pew Charitable Trusts contracted with consulting engineering firm Dewberry, which identified a range of state and local policies across the U.S. that are helping to reduce flood risk. Local officials and disaster resilience experts provided input during the research process. Two external reviewers—Nate Woiwode, project manager of The Nature Conservancy's North American Risk Reduction and Resilience team, and Elizabeth Albright, assistant professor of the practice of environmental science and policy methods at Duke University's Nicholas School of the Environment—provided expert insight. Neither they nor their organizations necessarily endorse the conclusions.

Endnotes

1 Arkansas Natural Resources Commission, "Tax Credit Program for the Creation, Restoration and Conservation of Wetland and Riparian Zones: Fact Sheet," https://static.ark.org/eeuploads/anrc/restoration_tax_credit_fact_sheet.pdf.

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13 Ibid.

14 C. Whitehead, Dewberry, email to S. Filat-Alami, land resource specialist, Arkansas Natural Resources Commission, July 13, 2018; State of Arkansas, An Act to Create Tax Credit Incentives.

15 Brazil and Filat-Alami, interview.

16 Ibid.

17 Ibid.

18 Ibid.

For further information, please visit:

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