



# FUNDING LAND CONSERVATION FOR WATER PROTECTION

Private lands are fundamental to sustaining Texas's water supplies. Most of the water in our state's rivers, lakes and aquifers starts as rainfall on private land, meaning that water quantity depends upon the protection of private lands. Water quality is also a function of the health of our private lands, as grasslands, forests and wetlands all provide valuable water treatment services, particularly for nonpoint source pollutants associated with stormwater runoff (see Figure 1). Both water quality and quantity can be protected through voluntary conservation programs, such as conservation easements, that incentivize private landowners to conserve land with significant water protection potential.

Yet despite the valuable water treatment benefits provided by our private lands and the acceptance of conservation easements as a preferred method of landowners for ensuring long-term conservation outcomes, the state has only invested a fraction of its public funding for clean water into land protection. Rather, the primary tool the state uses to fund water pollution prevention—the Clean Water State Revolving Fund (CWSRF)—has largely gone toward traditional point source pollution prevention projects like municipal wastewater treatment plants. Of the \$6.784 billion Texas spent from 1988-2016 through its primary funding source for water pollution prevention—the Clean Water State Revolving Fund (CWSRF)—only \$8.35 million went to projects designed to combat nonpoint source pollution, with none specifically for land conservation.<sup>1</sup>

## What Challenges Persist in Funding Land Conservation to Protect Water?

One of the reasons that point source projects have tended to garner the majority of public funds is that they are simpler to finance than the land conservation and restoration projects that abate nonpoint source pollution. Traditional point source pollution abatement projects like wastewater treatment plants have a straightforward method of repayment: the state loans its CWSRF funds to a utility looking to build a new treatment plant or to rehabilitate an aged facility, and the loan is paid back over time by revenues collected by the utility from its ratepayers. While some utilities fund land conservation through their rate base, most do not have the internal expertise to execute their own land conservation programs.

While the state can legally use its CWSRF to lend to land trusts or other nonprofit entities with expertise in land conservation, most such entities do not have a dedicated repayment stream to refund those loans. Since the state's revolving loan fund depends upon repayment of outstanding loans to enable future lending, the question of how to assure that CWSRF-funded projects can be repaid through a dedicated revenue stream is a critical component to achieving nonpoint source pollution reduction.

**Point Source Pollution (PS)** is contributed to waterways through constructed outfalls, such as those from wastewater treatment plants, industrial facilities or concentrated feeding animal operations.

**Nonpoint Source Pollution (NPS)** originates with stormwater runoff from many types of land use including urban development, agriculture and mining operations. After several decades of work to reduce point source pollution, NPS is today the primary contributor to water pollution in the United States.

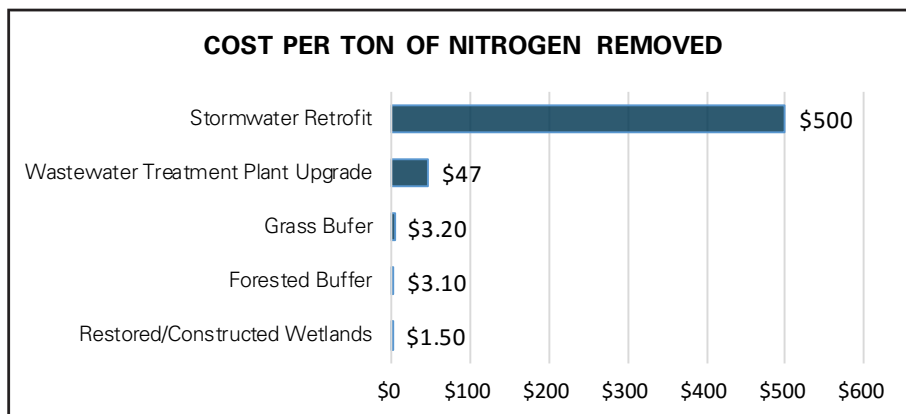
Source: US Environmental Protection Agency. Polluted Runoff: Nonpoint Source Pollution. n.d. <https://www.epa.gov/nps/what-nonpoint-source> (accessed January 16, 2017).

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**FIGURE 1**

Land conservation and restoration is highly cost-effective at managing nonpoint source pollution, making it a valuable complement to engineered infrastructure. <sup>2</sup>

## How Are Other States Funding Land Conservation for Water Protection?

Other states have amplified land conservation for water protection through creative adaptations of their State Revolving Funds (SRFs). One such state is Ohio, which uses its Water Resources Restoration Sponsorship Program (WRRSP) to create financial incentives for traditional infrastructure borrowers to sponsor land conservation and restoration projects.

Applicants to the state's Clean Water SRF can choose to borrow only as much money as they need for their wastewater or sewer projects, and receive a standard interest rate for their loans. Alternatively, through the WRRSP, borrowers can choose to take out a larger loan than what they need for their infrastructure projects if they agree to grant the additional amount lent by the state to a nonprofit or land trust for purchase of riparian corridor easements, stream channel restoration projects, or wetland restoration and protection projects. Borrowers can be matched with conservation projects by the state, which invites competitive proposals from conservation entities. Borrowers can also qualify for WRRSP funds to undertake land conservation projects themselves or sponsor land conservation projects they have identified with nonprofit or land trust partners.

The state makes sponsoring conservation projects attractive to borrowers by offering a lower interest rate through the WRRSP than through the state's traditional SRF program. Interest rates in the WRRSP are low enough that borrowers who sponsor land conservation projects ultimately pay less than they would to finance their infrastructure projects alone through the SRF, meaning that ratepayers save money and land conservation practitioners gain access to low-cost capital.

By pairing land conservation projects with traditional wastewater projects through the WRRSP, Ohio has brought more than \$160 million since program inception to protect and restore lands that provide critical water quality services.

## How One Ohio Sewer District Sponsored Headwaters Protection

In November 2010, the Northeast Ohio Regional Sewer District (NEORS) agreed to sponsor, among other projects, \$2.1 million in headwaters protection projects to be implemented by the City of Aurora in conjunction with the Trust for Public Land. The Spring Hill Wetlands project protected 153 acres of land, including a wetlands complex and the headwaters of the Aurora branch of the Chagrin River, as well as 4,000 linear feet of stream corridor. In exchange for its sponsorship, NEORS received an interest rate through WRRSP of 2.52%, substantially below the state's standard SRF rate floor of 3.25%. The size of NEORS's loan from the State of Ohio—\$205,000,000 for a stormwater tunnel in Cleveland—allowed it to sponsor many projects beyond the Spring Hill Wetlands through the interest rate cost savings it received through WRRSP, demonstrating the power of attaching conservation sponsorships to large infrastructure projects.





## How Could This Work in Texas?

Here in Texas, tapping into the substantial funding stream available each year through the CWSRF—which in 2017 will make as much as \$525 million in available loan capital—has the potential to similarly amplify land conservation for water protection. If Texas were to meet Ohio's FY15 WRRSP funding level of 2.7% of the state's Clean Water State Revolving Fund loan capital, it could fund \$14 million of land conservation projects a year.

Nonpoint source pollution projects are already eligible for CWSRF funds in Texas, which can be used to provide loans or grants to individuals or nonprofits as well as cities and utilities.<sup>3</sup> Offering even more competitive rates to borrowers that sponsor land conservation projects than the CWSRF's typical 1.5-1.7% interest rate is an important tool for encouraging program participation among borrowers with dependable revenues for loan repayment.

Expanding the reach of this existing authority can be achieved by encouraging borrowers to sponsor land conservation projects in exchange for lower interest rates (as practiced in Ohio) and by working with the land trust community to create a supply of eligible land conservation projects that meet water protection objectives while also keeping working lands in production.

The success of a sponsorship program also depends upon the supply of meaningful land conservation projects. To achieve that end, the administrator of the CWSRF—the Texas Water Development Board (TWDB)—could partner with the Texas Parks and Wildlife Department (TPWD), which administers the state conservation easement program, known as the Texas Farm & Ranch Lands Conservation Program. TPWD, together with TWDB, would develop criteria for evaluating land conservation projects to ensure that CWSRF funds will be used only for projects that can achieve nonpoint source pollution reduction in areas of critical hydrology. Once those criteria have been developed, TWDB and TPWD could work in conjunction with the land trust community to identify large landscapes that are most at risk of development and whose conversion would have the most detriment to water quality. The land community would also be a critical partner for building trust with landowners and developing fundable land conservation projects.

To manage the successful growth of this NPS sponsorship program, the state may consider developing a sponsorship program in 3-4 pilot regions across Texas for the first 3-5 years. Regions could be selected through a competitive Request for Proposals (RFP) among the 16 Regional Water Planning Groups, with selection criteria ensuring inclusion of at least one rural region.

Eventually, such a tool could also be adapted for use in funding other water quality strategies, such as environmental flows transactions with landowners to keep water in stream, helping to dilute nonpoint source pollution that cannot be prevented. The SRF program could also bolster other efforts in land protection for flood management by keeping lands in critical floodplains undeveloped, thereby mitigating flood potential in urban areas.

The conservation of private working lands is a low-cost strategy for protecting the state's water resources. By building a sponsorship program to fund land conservation for nonpoint source pollution reduction, Texas can cost-effectively protect critical water quality areas and aquifer recharge zones on private lands.

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<sup>1</sup> US Environmental Protection Agency. Clean Water SRF Program Information for the State of Texas. n.d. <https://www.epa.gov/sites/production/files/2016-12/documents/tx.pdf> (accessed January 20, 2017).

<sup>2</sup> Texas Commission on Environmental Quality. Texas Nonpoint Source Management Program Draft 2017. (September 2016). [https://www.tceq.texas.gov/assets/public/waterquality/nps/2017\\_ManagementProgram\\_090816draft.pdf](https://www.tceq.texas.gov/assets/public/waterquality/nps/2017_ManagementProgram_090816draft.pdf) (accessed January 17, 2016).

<sup>3</sup> World Resources Institute. How Nutrient Trading Can Help Restore the Chesapeake Bay. (December 2009). [http://pdf.wri.org/factsheets/factsheet\\_nutrient\\_trading\\_chesapeake\\_bay.pdf](http://pdf.wri.org/factsheets/factsheet_nutrient_trading_chesapeake_bay.pdf) (accessed January 16, 2017).