



Using the Drinking Water State Revolving Fund Set-Asides for Source Water Protection Loans

States may offer loans to community water systems to finance source water protection activities through the Local Assistance and Other State Programs set-aside.

WHAT IS SOURCE WATER PROTECTION?

Source water is the water from rivers, streams, lakes, springs and ground water aquifers that provides water to public drinking water supplies and private wells. Source water protection aims to safeguard, maintain, or improve the quality of those drinking water sources and their contributing land-areas. There is growing recognition that protecting a source from contamination is often more efficient and cost-effective than treating the drinking water to remove the contamination. Types of source water protection measures that a community can implement include local land use controls through land acquisition and conservation easements, best management practices for agricultural and forestry activities, and public education initiatives.

Source water protection is integral to providing safe and reliable drinking water to the nearly 300 million people served by community water systems in the United States. The Safe Drinking Water Act (SDWA) Amendments of 1996 established the Drinking Water State Revolving Fund (DWSRF) program, which awards capitalization grants from the U.S. Environmental Protection Agency (EPA) to each of the 50 states and Puerto Rico. A portion of the

capitalization grants can be used as “set-asides” to support non-infrastructure activities, including source water protection. DWSRF programs can use set-asides to develop and implement Source Water Protection Programs, delineate and assess source water protection areas, and finance a variety of local land use controls and other management tools for source water protection. The full range of source water protection activities eligible for DWSRF set-aside funding is described in a separate EPA fact sheet identified in the additional resources box below.

DWSRF ASSISTANCE

The Drinking Water State Revolving Fund (DWSRF) can provide financial assistance to publicly-owned and privately-owned community water systems, as well as non-profit non-community water systems, for drinking

Additional Source Water Protection Resources:

EPA’s Source Water Protection page:
epa.gov/sourcewaterprotection

EPA’s Fact Sheet on Source Water Protection Using Set-Asides:
epa.gov/dwsrf/protecting-source-water-dwsrf-set-asides

The Clean Water SRF Program: epa.gov/cwsrf

The Source Water Collaborative: sourcewatercollaborative.org

USDA Natural Resources Conservation Services:
<https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>



water infrastructure projects including cybersecurity measures. Projects must either facilitate the system's compliance with national primary drinking water regulations or significantly further the health protection objectives of the Safe Drinking Water Act.

Each of the 50 states and Puerto Rico operates its own DWSRF program. They receive annual capitalization grants from the EPA, which in turn provide low-interest loans and other types of assistance to water systems. Repayments of DWSRF loans begin 18 months after project completion, with loan terms up to 30 years for most communities, or up to 40 years for disadvantaged communities.

Additionally, states may use a portion of their capitalization grant from the EPA as "set-asides" to help communities build the technical, managerial, and financial capacities of their systems. With an emphasis on small systems, these funds help ensure sustainable infrastructure and public health investments.

LOCAL ASSISTANCE SET-ASIDE LOANS FOR SOURCE WATER PROTECTION

The Local Assistance and Other State Programs set-aside (i.e., 15%) can be used to provide loans to water systems for source water protection. Specifically, these loans can be used to acquire land or conservation easements needed to protect drinking water sources and for local planning and implementation of voluntary, incentive-based source water protection measures. Repaid loans may be recycled back into the set-aside account to fund other source water protection loans or to the state's infrastructure loan fund. States can provide principal forgiveness or negative interest rates for these loans using the Congressional additional subsidy authority. Any principal forgiveness or negative interest provided through source water protection loans counts toward the state's maximum allowable additional subsidy under the DWSRF.

ACQUISITION OF LAND OR CONSERVATION EASEMENTS

For some communities, an effective way to protect the quality of drinking water sources is through land ownership or restricted land uses. These efforts focus on watersheds or ground water recharge areas where development or other activities could impair the quality of the source water. States can use DWSRF set-aside funds to provide loans to water systems for the following land use controls:

- **Land Acquisition:** Purchase of land at or below the fair market value to control the types of activities that can take place.
- **Conservation Easement:** A Legal agreement with a landowner that permanently protects the land by limiting the amount and type of development that can take place but continues to leave the land in private ownership. Landowners typically sell conservation easements to a land conservation organization or government entity. Landowners who instead donate an easement may benefit from reduced income/estate taxes.

Land acquisition and conservation easements can prevent activities that may degrade water quality from occurring in critical areas. They can also provide additional community benefits such as preserving open space, enhancing recreational opportunities, and reducing flood damage.

SOURCE WATER PROTECTION MEASURES

Some communities are focusing their protection efforts on local, voluntary, and incentive-based source water protection measures. States can use the Local Assistance and Other State Programs set-aside to provide loans to water systems to implement these measures. This approach emphasizes a local stakeholder process to produce a plan for implementing a wide range of local land use controls and management tools, including:

- **Fencing:** Building fences that keep cattle away from the water's edge can reduce contamination in sources of drinking water and prevent bank erosion.
- **Capping Wells:** Sealing abandoned ground water wells and underground injection wells can keep contaminants out of ground water aquifers

- **Riparian Buffers:** Strips of vegetation along streams and around reservoirs can significantly reduce the amount of sediment and contamination entering the source water. The vegetation serves as natural filters, and the tree and shrub roots hold stream banks in place to prevent soil erosion.

PARTNERSHIPS OPPORTUNITIES

DWSRF set-aside loans for land acquisition, conservation easements, and other source water protection measures can only be made to public water systems. An organization such as a watershed association or land conservancy can become a co-signatory to the loan agreement with the water system. In this arrangement, the organization could help implement the land use control measures around the water sources and take over the responsibility for loan repayment. The loan agreement would describe the specific responsibilities of the organization and the water system with respect to the financial assistance provided by the state. Such partnerships may complement ongoing work of the organization to preserve parts of a watershed or aquifer recharge area for other purposes.

Additionally, these source water protection loans can leverage other sources of funding. These include the 2018 Farm Bill, EPA's 319 program, and private lending. There are often partnership opportunities available with land trusts, nonprofit organizations, and others with expertise in land protection issues that could work closely with the water systems.

The following are some examples of the types of activities that land trusts and other organizations can do to facilitate source water protection (eligible activities under other parts of the 15% set-aside):

- provide technical assistance to water systems in identifying properties that qualify for funding;
- offer expertise in negotiating land acquisitions or conservation easements with willing sellers;
- manage land trusts or conservation easements once they are acquired from a willing seller; and

- assist with public outreach efforts to demonstrate the benefits of protecting water supplies within a community.

SOURCES OF LOAN REPAYMENT

Each state must include approval of a source of loan repayment as part of the application review and approval process. Although finding a source of repayment can prove challenging, it is possible. The source of repayment need not come from the project itself. Loan recipients can be creative in developing sources of repayment.

Some potential repayment sources include:

- Drinking water user fees.
- Dedicated portions of local, county, or state taxes or fees.
- State or local government grants.
- Fees paid by developers.
- Recreational use fees.
- Revenue from sustainable timber harvest or other forest products.
- Nutrient credits.
- Donations made to nonprofit groups (in cases when a nonprofit is a co-signatory on a loan).

ESTABLISHING A PRIORITY SYSTEM FOR LOANS FOR SOURCE WATER PROTECTION

Each state that establishes a loan program for land acquisition or conservation easements and source water protection measures must develop a priority-setting process to determine which projects to fund. An important consideration for the priority-setting process would be an evaluation of how the land, easement, or measure to be funded will protect the water supply from contamination and help ensure compliance with national drinking water regulations.

Each state that has established a loan program has developed a unique priority system for ranking projects. Many of these priority systems include the requirement that the land be within a delineated source water or wellhead protection area.





DWSRF Case Studies: Source Water Protection Loans Under the DWSRF Set-Asides

How states and communities are using the DWSRF Local Assistance and Other State Programs set-aside loans to safeguard sources of drinking water.

MAINE: PROTECTING LAKE AUBURN AND THE CHASE POND WATERSHED

The Auburn Water Department received a loan for \$570,000 to acquire 434 acres of land in the watershed of the "Basin," a small pond which drains directly into Lake Auburn. Lake Auburn serves as a source for two water systems. The systems collaborated with the Lewiston-Auburn Watershed Commission and the Androscoggin Land Trust (ALT) and negotiated a joint easement. Under this easement, the Commission reviews the landowner's forest management plan to ensure that best management practices for water quality are used and ALT shares overall easement monitoring responsibilities. By protecting land around Lake Auburn, the water systems have been able to maintain their source water quality.

The York Water District in Maine has used the loan program four times since 2007 to achieve its long-term goal of protecting the Chase's Pond watershed. Chase's Pond is a long, narrow, and shallow pond that has served as the sole drinking water source for the Town of York since 1896. The District determined that ownership of this 2,090-acre watershed is critical to protecting its water quality. In 2014, the District was awarded a loan through the state's land acquisition

loan program for \$249,000 to acquire 2.23 acres of land. The loan term is 10 years and has a 0% interest rate. The acquired land is adjacent to parcels previously acquired in 2007 and 2010, increasing the extent of protected land in the watershed. Additionally, the property acquired in 2014 included a single-family residence, which has been repurposed for the Town of York Natural Resource Protection Patrolling Program office. This program partners the York Water District and its police department with two bordering areas, the Kittery Water District and the Mount Agamenticus Conservation Region. The land acquisition resulted in lasting improvements to both water quality and local land management partnerships.

VERMONT: PROTECTING LAND USE IN SOURCE WATER PROTECTION AREAS

The Town of Bradford received a \$140,000 loan to purchase a tract of farmland within Zone I of the system's source protection area. The purchase was a high priority because the Town's source protection plan identified high-risk land use activity on the property.



CALIFORNIA: PROTECTING CONTRA LOMA RESERVOIR

The Contra Costa Water District relies on the Contra Loma Reservoir to supply drinking water to its community. The community has historically enjoyed the reservoir for swimming and recreation, but the human contact was associated with increased coliform levels in the reservoir. To improve water quality for the drinking water supply and to preserve the enjoyment of the reservoir for swimming, the Contra Costa Water District received a loan through the Local Assistance and Other State Programs set-aside for \$2 million to build the Contra Loma Reservoir Swim Lagoon. A concrete-covered earthen berm was built to separate the water supply from all human contact. The project was completed as one of many projects to address the challenges facing the Bay-Delta in California. The loan term was 20 years and had an interest rate of 2.39%. The project will protect both the water quality and the community's enjoyment of the Contra Loma Reservoir for years to come.



NEBRASKA: SUPPORTING ACQUISITION OF WATERSHED LAND

The Nebraska DWSRF made a \$1 million loan to the City of Syracuse for a land purchase of 637 acres from a group of private owners. This land will protect the City's wells (built in the 1950s) from nitrate contamination. The loan was paired with the development of a Drinking Water Management Protection Plan for the City. The plan will develop a groundwater model to delineate the 50-year well head protection area and establish a robust Nebraska Department of Environmental Quality and EPA approved Drinking Water Protection Management Plan that includes all elements of a Well Head Protection Plan. This project identifies water quality issues and opportunities for improving water quality, and it and engages the community in planning and implementation.

The Nebraska DWSRF makes protection plans a requirement of any land loan agreements, under the 15% set-aside, and it will serve as the guide for the City to protect its well field source, and will make them eligible for CWA Section 319 assistance in the future.

LEARN MORE ABOUT FUNDING

DWSRF assistance is distributed directly from state agencies. Each state has its own funding procedure. Contact information for each state is posted at <https://www.epa.gov/drinkingwatersrf/state-dwsrf-website-and-contacts>.



For more information, visit: [epa.gov/dwsrf](https://www.epa.gov/dwsrf)