Financing Resilient and Sustainable Water Infrastructure

The Water Infrastructure and Resiliency Finance Center helps communities identify financing options for resilient and sustainable infrastructure projects. Key components of resiliency include water efficiency, energy efficiency, green infrastructure, and water reuse. Many resiliency projects for water utilities are eligible for federal and state financing.

Water Infrastructure Financial Leadership

Financial leadership practices for water infrastructure and services are an integral component of the overall economic health of every community. The health of all communities—small or large, wealthy or in need—depends on adequate infrastructure that can reliably deliver safe drinking water, and provide wastewater and stormwater management consistently. Through effective financial leadership practices, utilities are anchor institutions that create jobs and provide public health services to sustain their local economies.

- Water Infrastructure Financial Leadership: Successful Financial Tools for Local Decision Makers: U.S. EPA and the Environmental Council of the States developed this document to be a resource for local leaders considering water infrastructure investments.

Stormwater and Green Infrastructure Financing

EPA is in the process of forming the EFAB Stormwater Finance Workgroup.

Communities across the country are embracing green infrastructure solutions that capture rain where it falls rather than paying to treat it at the end of the system. These practices make communities more resilient and improve water quality, save money, and attract jobs.

Green infrastructure:

- Improves the appearance of cities.
- Boosts property values.
- Attracts private investment.

EPA has compiled a list of:

- Green infrastructure funding opportunities and
- Green infrastructure practices

In addition, EPA Region 3 developed a Community Based Public-Private Partnerships and Alternative Market-Based Tools for Integrated Green Stormwater Infrastructure: A Guide for Local Governments.

The Center supports communities to develop dedicated sources of revenue for their stormwater and green infrastructure programs. There are nearly 1,500 stormwater utilities nationwide according to Western Kentucky University's Stormwater Survey.

The Center is a stormwater financing clearinghouse. The Center provides tailored information and technical assistance to communities looking to develop a dedicated source of revenue for stormwater and green infrastructure programs.

Resources for financing stormwater projects:

- University of Maryland Environmental Finance Center
- University of North Carolina Environmental Finance Center

Water Efficiency Financing

Increasing water efficiency is an effective way for water utilities to deliver high quality services to consumers while reducing overhead costs. Improving water efficiency reduces operating costs (e.g., pumping and treatment) and reduces the need to develop new supplies and expand water infrastructure.

Resources for utilities financing water efficiency projects:

- Funding Water Efficiency Through the State Revolving Fund Programs (PDF)(8 pp, 1.4 MB, About PDF)
- Water Efficiency for Suppliers

Energy Efficiency Financing

Water and wastewater utilities are typically the largest consumers of energy in municipalities, often accounting for 30 to 40 percent of total energy consumed. Investing in energy efficiency in water sector systems can significantly reduce operating costs.

- Strategies for Saving Energy at Public Water Systems (PDF)(16 pp, 363 K, About PDF)
  This guide discusses energy issues facing public drinking water systems. The guide outlines steps that systems can take to understand and reduce their energy use and costs, and identifies funding resources for energy efficiency.

- Case Study: Douglas, Arizona Commits to $1.3 Million in Energy Efficiency Improvements
  To mitigate increasing energy costs, the City of Douglas obtained a $1.3 million loan from the Water Infrastructure Finance Authority (WIFA) of Arizona in June 2014 to design and install a 300-kilowatt

solar system to power its wastewater treatment plant. The solar array is projected to generate nearly 520,000 kilowatt hours of electricity per year, or 50 percent of the plant's electric requirements. Once installed, Douglas estimates it will save $32,000 per year in energy costs and $640,000 over the next 20 years.

- Cutting Energy Use and Costs
  This web page has information on improving energy efficiency, best energy practices and paying for energy efficiency improvements at water and wastewater utilities.

Water Reuse Financing

In the face of increasing water supply challenges, water reuse can be an attractive option to increase efficiency and ensure sustainable supplies of water.

- EPA Guidelines for Water Reuse (PDF)(643 pp, 17.5 MB, About PDF)
  These guidelines are a comprehensive resource on water reuse practices and includes a chapter on Funding Water Reuse Systems.
- Case Study: California State Revolving Fund Approves $800 Million in Financial Incentives for Recycled Water Projects
  In March 2014, the California State Water Resources Control Board approved low-interest financing terms to incentivize water recycling projects. The Board made $800 million available at 1 percent interest. Among the projects eligible for funding are recycled water treatment, distribution and storage facilities. The financing helps California reach its goal of recycling 150,000 acre-feet of water annually, thereby providing much-needed water sources for decades.

Flood Protection Financing

- EPA's Flood Resilience: A Basic Guide for Water and Wastewater Utilities (PDF)(47 pp, 2.2 MB, About PDF)
  This guide helps water and wastewater utilities become more resilient to flooding and provides cost and financing information. Flood resiliency is the capacity of a utility to withstand a flood, minimize damage, and recover quickly to provide reliable service. Increasing flood resiliency requires financial investment in mitigation measures.

Drought Resiliency Financing

- State Revolving Funds: Financing Drought Resilient Water Infrastructure Projects
  This report highlights innovative funding policies and programmatic actions that states are using to support drought resilient investment and operations through incentives, state requirements, and technical assistance.

Last updated on December 10, 2024

Assistance

Arabic

Chinese (traditional)

Asistans

Assistência

Tulong

Ayuda

Chinese (simplified)

Aide

Korean

Russian

Vietnamese

Discover.

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