

Funding SSOs with the Clean Water State Revolving Loan Fund

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What We Will Discuss

- ▶ National Overview of the CWSRF Program and Funding Structure
- ▶ New Eligibilities after the 2014 Water Resources Reform and Development Act (WWRDA)
- ▶ Going beyond wastewater system construction to address SSOs with stormwater, water efficiency, and non-point source projects.
- ▶ Quick look at non-point source EPA grant funding.

Overview of the CWSRF Program

- ▶ CW: 51 State Programs = 1 National Program
 - ▶ TWDB Website:
<http://www.twdb.texas.gov/financial/programs/CWSRF/>
- ▶ Operated by State Agencies; capitalized by EPA and 20% State Match
- ▶ Impressive results - through 2012:
 - ▶ CWSRF total funds: \$97 billion
 - ▶ DWSRF total funds: \$26 billion
 - ▶ Total: \$123 billion



Features of SRF Assistance

- ▶ Primarily low-interest loan programs
 - ▶ Below-market interest rates provide a “grant equivalence”
 - ▶ Interest rates between zero and market rate. Texas interest rates are 120-155 points below market rate depending on whether it is an equivalency or non-equivalency project, and whether the borrower is rated. Talk to the state representative for more information.
 - ▶ Repayments return to the fund are loaned out to other projects
- ▶ ARRA and subsequent appropriations acts added an additional subsidy component
 - ▶ Principal forgiveness
 - ▶ Subsidy in Texas is based on several factors including whether a community is disadvantaged (AMHI) and how much of a project is green. The state defines their subsidy criteria in their IUP.

Grant Equivalence

		CWSRF Rate						
		0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%
Market Rate	5.0%	38%	31%	24%	16%	8%	0%	-9%
	6.0%	43%	36%	30%	23%	16%	8%	0%
	7.0%	47%	41%	35%	29%	22%	15%	8%
	8.0%	51%	46%	40%	34%	28%	21%	14%
	9.0%	54%	49%	44%	39%	33%	27%	20%

For example, when the market rate is 5.0%, a 2.0% CWSRF loan to a \$1 million project is equivalent to a \$240,000 grant and a \$760,000 loan at the market rate

Repayment Sources May Vary

- ▶ CWSRF: Traditional construction projects
 - ▶ Typical usage based on user charges
- ▶ CWSRF: Non-point source projects
 - ▶ Many creative types of repayment sources in use
 - ▶ Farming revenues, non-profit membership fees, home owner fees, landfill fees, property tax revenue, etc.
- ▶ What is the repayment term?
 - ▶ CWSRF extended term financing is available: 30 years or Useful Life of a Project



CWSRF Assistance Eligibility

What?

- ▶ **CWA § 212 projects** - construction of publicly owned treatment works (POTWs)
 - ▶ Note: Only capital projects are eligible (No O&M)
 - ▶ Planning and design of a capital project is eligible!
- ▶ **CWA § 319 projects** - implementation of nonpoint source projects
- ▶ **CWA § 320 projects** - development and implementation of an NEP CCMP
- ▶ New eligibility categories added under WRRDA

Who?

- ▶ Varies by state, however assistance recipients can include:
 - ▶ Communities
 - ▶ Individuals
 - ▶ Citizen's groups
 - ▶ Nonprofit organizations
 - ▶ Businesses (not for POTW projects)

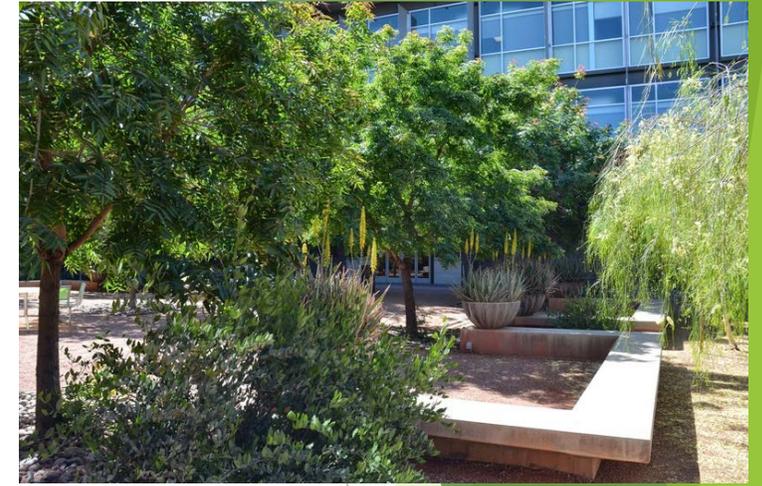


Most Common SSO Projects

- ▶ Sanitary sewer overflow correction projects may be funded under the CWSRF's §212 point source eligibility (construction of POTWs). CSOs and SSOs are defined by the CWA as treatment works.
- ▶ Polluted runoff from MS4s may be funded under either the CWSRF's §212 eligibility or its §319 nonpoint source eligibility. If a community is permitted, it is considered a point source, and therefore, may only be funded under the as a point source project.
- ▶ Projects include sewer system rehabilitation, new collector sewers, new interceptors, storm sewer rehabilitation, infiltration/inflow correction, and stormwater management facilities such as sediment traps and basins, constructed wetlands, street sweepers and catch basin vacuum vehicles.
- ▶ Additionally, any of the above public and private projects may be funded under the §320 eligibility if the project is located in a National Estuary and is listed in the estuary's Comprehensive Conservation Management Plan (CCMP).

New Eligibilities - Overview

- ▶ WRRDA adds eight new project eligibilities to the three original CWSRF eligibilities
- ▶ New eligibilities expand the ability of states to fund
 - ▶ stormwater projects,
 - ▶ energy and water efficiency initiatives,
 - ▶ work with private borrowers, and offer technical assistance



Definition of Treatment Works

Sec. 212 (2)(A) "The term "treatment works" means any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 201 of this act..."

*Sec. 212 (2)(B) "In addition to the definition contained in subparagraph (A) of this paragraph, "treatment works" **means any other method of system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water run-off, or industrial waste, including waste in combined storm water and sanitary sewer systems.**"*

Treatment Works Eligibility: Applicability of Federal Requirements

- ▶ Section 603(c) summarizes eligible project types
- ▶ Regardless of which eligibility they are funded under, all projects considered Treatment Works as defined in section 212 (treatment work) must comply with the following:
 - Environmental review requirements
 - Davis-Bacon
 - American Iron & Steel
- Current interpretation broadens what is considered a treatment works - up to States to decide for themselves
- 319 and 320 projects no longer automatically exempt from these provisions

New Opportunities: Land Purchase

- ▶ Amendments to section 212(2)(A) expand the definition of treatment works to include land necessary for construction
- ▶ Eligible expenses now include:
 - Leasing or fee-simple purchase of land
 - Surface and subsurface easements
 - This includes:
 - Land required to store equipment and materials during construction
 - Land required to locate eligible treatment or distribution/collection projects
 - Land for effluent application or **recharge basins**

Stormwater Projects

Previously Eligible	New Eligibilities
<ul style="list-style-type: none">• Stormwater projects eligible as a component of a State 319-plan• Stormwater projects in MS4 areas eligible only if publicly owned	<ul style="list-style-type: none">• Eligible as an independent authority• Privately owned, permitted and unpermitted stormwater projects can now be funded including urban stormwater projects in MS4 areas

New Opportunities: Stormwater

- ▶ (5) for measures to manage, reduce, treat, or recapture stormwater or subsurface drainage water;
- ▶ Publicly and privately owned, permitted and unpermitted projects
- ▶ This language eliminates ownership constraints on regulated stormwater projects. For example, projects that are specifically required by a Municipal Separate Storm Sewer System (MS4) permit are now eligible, regardless of ownership. Projects may include, but are not limited to green roofs, rain gardens, roadside plantings, porous pavement, and rainwater harvesting.



Pervious



Impervious

vs.

New Opportunities: Water Efficiency, Conservation

- ▶ 6) *to any municipality or intermunicipal, interstate, or State agency for measures to reduce the demand for publicly owned treatment works capacity through water conservation, efficiency, or reuse;*
- Rebate program for water efficient appliances
- Installation, replacement, or upgrade of water meters
- Gray water recycling and equipment to reuse effluent
- Water efficient landscape irrigation equipment that reduces runoff into combined systems
- Water audits and water conservation plans

Project may take place on public or private property as long as it **reduces demand for POTW capacity.**

I&I Projects & Green in TX

- ▶ http://www.twdb.texas.gov/financial/programs/GREEN/doc/GreenProjectReserve_CWSRF_brochure.pdf

Energy Efficiency

CWSRF energy efficiency business cases must demonstrate cost effectiveness: energy savings greater than capital and operation and maintenance costs during the useful life of the asset.

- Projects reducing energy consumption by the system or a unit process
- Renewable energy projects providing power to a wastewater treatment facility
- Collection system infiltration/inflow (I&I) detection equipment or I&I correction projects that will save energy through reduced pumping and treatment
- Energy audits or optimization studies expected to result in a capital project
- National Electrical Manufacturers Association premium efficiency motors, Supervisory Control and Data Acquisition systems, or variable frequency drive motors justified by energy savings.

New Opportunities: Recycled Water

- ▶ Partially fund a private facility if the portion of the costs funded by the SRF are going to water reuse
- ▶ Privately owned water reuse facility
- ▶ Distribution lines for recycled water (“purple pipe”) on private property
- ▶ Commercial/Industrial reuse
 - ▶ Paper
 - ▶ Textiles
 - ▶ Energy development
 - ▶ Food and beverage
 - ▶ Sports facilities
 - ▶ Shopping Malls



Direct Potable Reuse

- ▶ Eligible under CWSRF program at POTWs
 - ▶ Can treat wastewater to meet drinking water standards and can also pay for the recycled water distribution lines (publicly owned; can't pay for water pipes in individual households)
- ▶ DPR is actively being explored in:
 - ▶ Virginia
 - ▶ California
 - ▶ Texas
 - ▶ New Mexico
- ▶ DPR still raises a number of issues and requires careful examination of regulatory requirements - none have been "officially" established to date

New Opportunities for Expansion

- ▶ Watershed projects
 - ▶ Watershed management of wet weather discharge
 - ▶ Watershed partnerships
 - ▶ Integrated water resources planning
 - ▶ Stormwater management planning
 - ▶ Stormwater Best Management Practices
 - ▶ Weather/climate-related resilience planning
- ▶ **NOW OPEN TO PUBLIC AND PRIVATE ENTITIES**
- ▶ Energy efficiency projects
 - ▶ Renewable energy
 - ▶ Energy efficient lighting, HVAC, process equipment or electronic equipment and systems
 - ▶ Energy audits and other planning activities
 - ▶ Private laterals (I&I)
- ▶ Projects may take place on **PUBLIC OR PRIVATE** property

Section 603(c)(11)

Funding for Nonprofits

(11) to any qualified nonprofit entity, as determined by the Administrator, to provide assistance to owners and operators of small and medium publicly owned treatment works—

(A) to plan, develop, and obtain financing for eligible projects under this subsection, including planning, design, and associated preconstruction activities; and

(B) to assist such treatment works in achieving compliance with this Act.

- ▶ Can hire for technical assistance in planning and design.

Overview of Eligible CWSRF Projects



- ▶ Wastewater treatment plant
- ▶ Sewer interceptors
- ▶ Sewer collection systems
- ▶ Pumps and equipment
- ▶ CSO correction
- ▶ Land purchase for treatment application
- ▶ Stormwater pipes, storage and treatment
- ▶ Sediment traps and basins
- ▶ Wetland restoration
- ▶ Conservation easement
- ▶ Onsite sewage treatment (septics)
- ▶ Cluster systems
- ▶ Land for reservoirs
- ▶ Green infrastructure
- ▶ Energy-efficiency POTW upgrades
- ▶ Water conservation education
- ▶ Water-efficient fixtures
- ▶ Water meters
- ▶ Recycled water distribution system
- ▶ Alternative energy for a POTW
- ▶ Landfill leachate collection/liners
- ▶ Planting trees and shrubs
- ▶ Pervious pavement
- ▶ Contaminated site cleanup
- ▶ Efficient irrigation equipment
- ▶ Manure management BMPs
- ▶ More

More Resources...



FACT SHEET

Funding Wet Weather Projects with the Clean Water State Revolving Fund

✓	Mitigation Options for Wastewater Treatment Plant	Cost
1. Prevent treatment plant from flooding.		
<input type="checkbox"/>	a. Install physical barriers to protect the entire facility from flooding (e.g., flood walls, levee, sealed doors) or be able to deploy temporary systems that achieve the required protection.	\$\$
<input type="checkbox"/>	b. Install green infrastructure within or beyond the boundaries of the treatment works to attenuate, divert or retain flood water and storm surges.	\$\$
<input type="checkbox"/>	c. Install flood water pumping systems and or channel/culvert systems to collect and divert flood water.	\$\$
<input type="checkbox"/>	d. Correct infiltration and inflow problems to reduce flows to the treatment works in a flood.	\$\$\$
<input type="checkbox"/>	e. Separate combined sewers to reduce flows to the treatment works in a flood.	\$\$\$
<input type="checkbox"/>	f. Construct a large storage tank to store overflows for future treatment (e.g., a large-capacity combined sewerage overflow (CSO) tunnel).	\$\$\$
2. Protect critical components if treatment plant does flood.		
<input type="checkbox"/>	a. Secure air tanks to prevent floatation if flooded.	\$
<input type="checkbox"/>	b. During upgrades or design of new equipment, develop capability to temporarily remove and safely store vulnerable components before a flood when there is enough advanced notice to do so.	\$-\$\$\$

FACT SHEET: Funding Wet Weather Projects with the Clean Water State Revolving Fund

<http://yosemite.epa.gov/water/owrcCatalog.nsf/e673c95b11602f2385256ae1007279fe/e2c81266c02ea22d85256d6b00701261!OpenDocument>

FLOOD RESILIENCE: A Basic Guide for Water and Wastewater Utilities

<http://www.epa.gov/waterutilityresponse/build-flood-resilience-your-water-utility>

- to any municipality or intermunicipal, interstate, or State agency for projects that reduce the energy consumption needs of a POTW including projects to correct inflow and infiltration of collection systems (e.g., privately-owned laterals). *Section 603(c)(8)*

New Eligibility Guide for CWSRF will be released in Spring 2016.

Questions?

