

CWSRF Green Project Reserve Webcast Training Series

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How to use Clean Water State Revolving Fund American Reinvestment and Recovery Act funds for your Green Project

Clean Water State Revolving Fund Team
Office of Wastewater Management
United States Environmental Protection Agency
Washington, DC



May 14, 2009



Getting to Know Live Meeting



- Having problems with the audio or Web portion of today's event: Contact Customer Care by pressing *0 on your telephone keypad
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A screenshot of the Microsoft Live Meeting interface. The main window displays a poll question: "What department do you work in?". Below the question are radio button options for Sales, Marketing, Human Resources, IT, Finance, Training, and Engineering. To the right, a "Results" table shows the percentage of votes for each department. The "IT" and "Finance" options are selected, each with 25% of the vote. The "Engineering" option has 50% of the vote. The interface also shows a list of attendees, a seating chart, and a question and answer console.

Department	Percentage	Count
Sales	0%	0
Marketing	0%	0
Human Resources	0%	0
IT	25%	1
Finance	25%	1
Training	0%	0
Engineering	50%	2



Clean Water
State Revolving Fund

Presenter for Today...



- Stephanie vonFeck – Green Project Reserve Team Lead, US Environmental Protection Agency, Office of Wastewater Management, Clean Water State Revolving Fund Branch



Just a Reminder...



- **Goals of this Webcast Training:**
 - Introduce the Clean Water State Revolving Fund (CWSRF) programs
 - Explain the types of projects that qualify for Green Project Reserve financing from the American Reinvestment and Recovery Act (ARRA)
 - Answer questions the water quality community has about Clean Water State Revolving Fund financing

Just a Reminder...



- Target Audience:
 - Local governments
 - Publicly or privately owned treatment works
 - Nonprofit Organizations
 - Non-Clean Water State Revolving Fund program state environmental quality branches

Agenda

1. Introduction to the Clean Water State Revolving Fund
2. American Recovery and Reinvestment Act Financing in the Clean Water State Revolving Fund
3. Project types that can be funded by the Clean Water State Revolving Fund and the American Recovery and Reinvestment Act
4. Applying for Clean Water State Revolving Fund financing



Handouts Available to Download



- Copy of Presentation



Polling Question



- **How many folks do you have on the line with you today?**
 - A. 1-2
 - B. 2-4
 - C. 4-6
 - D. 6-10
 - E. 10 or more

1. Introduction to the Clean Water State Revolving Fund (CWSRF)



1. Introduction to the CWSRF

- What is the CWSRF
- How does the CWSRF work?
- Who is eligible for CWSRF financing
- Applying for CWSRF financing
- Questions and Answers

The CWSRF Programs

- Created in 1987 when Congress amended the Clean Water Act
- Funds wastewater, sewer, stormwater, and other water quality projects
- Designed to provide a perpetual source of desirable financing
 - All assistance is provided at below market rates
- Replaced the existing construction grants program



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Drinking Water State Revolving Fund Programs



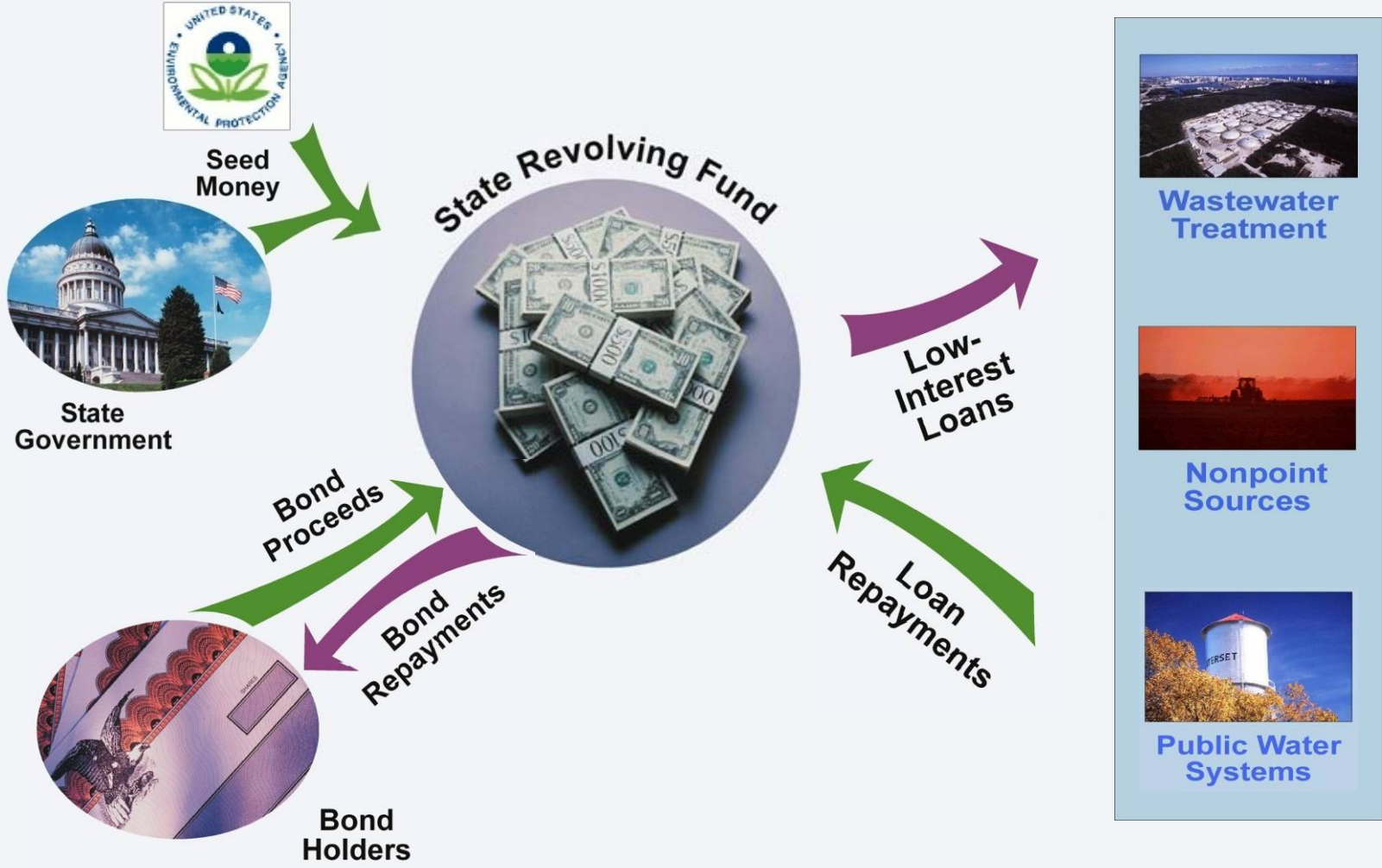
- The Drinking Water State Revolving Fund programs fund drinking water projects, and are managed separately from the Clean Water State Revolving Fund Programs
- This presentation pertains only to the Clean Water State Revolving Fund Programs
- For more information on these programs visit:

<http://www.epa.gov/safewater/dwsrf/index.html>

The CWSRF Programs

- 51 state-state run independent CWSRF programs (Puerto Rico also has a program)
 - States set program priorities
 - States make final decisions on which projects to fund
- EPA provides support and oversight to state programs

CWSRF programs: Infrastructure Banks



CWSRF Structure

- Programs are capitalized each year by the Federal government: \$26.1 billion since 1987
- States provide 20% match to federal capitalization: \$5.6 billion since 1987
- Some states raise additional funds by issuing bonds on the market
- Average loan interest rate is half of the municipal bond rate

CWSRF Project Types

- CWSRF programs can fund projects of three major types:
 - Projects that address **municipal wastewater and stormwater** pollution
 - Projects that address **nonpoint source** pollutants
 - Projects that address pollutants in the **National Estuary Program**
- Individual States may chose to focus on certain types of projects and exclude others



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CWSRF Project Types



- Planning and design
- Wastewater Treatment facilities
 - Primary treatment
 - Secondary treatment
 - Advanced treatment
- Sewer systems
 - New sewer construction
 - Sanitary sewer overflow
 - Combined sewer overflow
- Water Reuse Projects
- Urban stormwater management
- Nonpoint source
 - Onsite sewage treatment/ decentralized systems
 - Hydromodification
 - Agricultural BMPs
 - Silviculture
 - Brownfields/UST
 - Leachate control
- Estuary projects

CWSRF Assistance Types



- States use funds to provide assistance using a variety of delivery types:
 - Direct loans
 - Pass-through loans
 - Loans via state, county, and local governments
 - Linked deposit loans
 - Sponsorship programs
 - Purchase of local debt
 - Insurance
 - Guarantees

CWSRF Eligibility

- Many different types of organizations are eligible for CWSRF financing, including:
 - Municipalities
 - Publicly owned wastewater treatment works
 - Privately owned wastewater treatment works (in national estuary areas)
 - State agencies
 - Nonprofit organizations
 - Homeowners
 - Farmers

CWSRF Repayments Sources



- States have the flexibility to access income from many sources as repayment for assistance, including:
 - Usage based wastewater bill charges
 - Special assessments
 - Home owner association assessments
 - Stormwater district fees
 - Farming revenues
 - Non-profit membership fees
 - Home owner fees
 - Landfill fees
 - For profit company revenue
 - Property tax revenue

CWSRF Funded Construction



- CWSRF programs provide assistance on a reimbursement basis
 - Assistance recipients submit reimbursement requests with invoices for work completed
 - CWSRF program disburses funds to assistance recipients
 - Assistance recipients provide funds to contractors and vendors for work completed or services provided



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CWSRF Programs: Financial Success



- CWSRF programs are effective in delivering money to high priority projects:
 - 69% of projects have helped to protect human health
 - 70% of projects help to protect or restore aquatic life or wildlife
 - 115 million people living in 2,262 have had local water quality protected or restored
 - 98% of available funds have been used as of 2008

(Sources: NIMS, CBR databases)



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CWSRF Programs: Financial Success



- CWSRF programs save communities significant financing costs:
 - CWSRF loan interest rates average 50% of market rates
 - Typical CWSRF loan saves a community 20% over a 20-year loan
 - \$68.8 billion in assistance has been provided through 2008
 - \$2.9 billion for more than 9,900 nonpoint source and estuary projects

(Sources: Bond Buyer, NIMS database)



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CWSRF Programs: Financial Success

- CWSRF programs save communities significant financing costs:

Cost Savings of CWSRF Below-Market Interest Rates

		CWSRF Rate				
		0.0%	1.0%	2.0%	3.0%	4.0%
Market Rate	5.0%	38%	31%	24%	16%	8%
	6.0%	43%	36%	30%	23%	16%

- For example, when the market rate is 6.0%, a 3.0% CWSRF loan to a \$100,000 dollar project is equal in savings to a \$23,000 grant and a \$77,000 loan at market rates



Polling Question

- **What CWSRF fundable project type is of highest priority in your community or for your organization?**
 - A. Wastewater treatment facilities
 - B. Sanitary sewer systems
 - C. Stormwater management systems
 - D. Decentralized wastewater treatment systems, including septic tanks and cluster systems
 - E. Nonpoint projects

Question & Answer Section

Have a question?

Submit it using the Q&A console or
use the Live Audio function.

2. American Recovery and Reinvestment Act Financing



2. American Recovery and Reinvestment Act Financing (ARRA)

- American Recovery and Reinvestment Act funding levels and requirements
- Goals and implementation of the American Recovery and Reinvestment Act
- Description of the 20% Green Project Reserve
- Questions and answers

2. American Recovery and Reinvestment Act Financing (ARRA)



- Legislation enacted by Congress in response to the recession that began in 2008
- Designed to stimulate economic growth and job creation
 - One way to create jobs is for the Federal government to invest in the construction of public infrastructure

ARRA and the CWSRF



- Congress recognized the CWSRF programs' proven ability to deliver Federal funding to high priority, high benefit projects
- Congress appropriated \$4 billion dollars to the CWSRF programs in 2009-2010, in addition to the annual appropriation

ARRA and the CWSRF



- Special requirements for the use of ARRA funding by the CWSRF:
 - Abbreviated funding cycle
 - Projects under contract or construction before February 17, 2010
 - Creation of a Green Project Reserve (GPR)
 - Grant/loan forgiveness/negative interest allowed
 - Buy American provision
 - Fair wage provision
- EPA guidance for ARRA can be found at www.epa.gov/recovery

ARRA SRF Green Reserve



- 20% of each state's capitalization grant must be used for "Green Reserve" projects
- Green Reserve projects must be under contract or construction by February 17, 2010

ARRA SRF Green Reserve



- Project types eligible for Green Reserve funding:
 - Projects with **water efficiency** components
 - Projects with **energy efficiency** components
 - **Green (stormwater) infrastructure** projects
 - **Environmentally innovative** projects

ARRA SRF Green Reserve



- Water efficiency projects eligible for Green Reserve financing include (but are not limited to):
 - Retrofit or replacement of water using fixtures, fittings, equipment, or appliances
 - Efficient landscape or irrigation equipment
 - Systems to recycle gray water
 - Collection system leak detection equipment
 - Installation of water meters
 - Reclamation, recycling, and reuse of existing rainwater, condensate, degraded water, stormwater, and/or wastewater streams

ARRA SRF Green Reserve



- Energy efficiency projects eligible for Green Reserve financing include (but are not limited to):
 - Energy efficient retrofits and upgrades to pumps and wastewater treatment processes
 - Leak detection equipment for treatment works
 - Producing clean power for treatment works on site
 - Wind
 - Solar
 - Hydroelectric
 - Geothermal
 - Biogas powered combined heat and power

ARRA SRF Green Reserve



- Green (stormwater) infrastructure projects eligible for Green Reserve financing include (but are not limited to):
 - Green streets
 - Water harvesting or reuse
 - Wet weather management systems for parking areas
 - Porous pavement
 - Bioretention
 - Trees
 - Green Roofs
 - Hydromodification to restore:
 - Riparian buffers
 - Floodplains
 - Wetlands
 - Downspout disconnection
 - Comprehensive street tree or urban forestry programs
 - Other green stormwater system retrofits

ARRA SRF Green Reserve



- Other projects can be funded through the green reserve if a borrower can make a “business case” that they are green or innovative
 - A business case is documentation of the reason the project or project component was judged to qualify for the Green Project Reserve
 - States can help assistance recipient develop business cases for their projects
- For more information see:
www.epa.gov/recovery

ARRA SRF Green Reserve



- Planning, design and building activities are eligible
- The Green Reserve can fund whole projects or the green components of projects
- Green Reserve projects do not have to be part of a larger capital improvement project

Additional Subsidization

- ARRA allows CWSRF programs to provide assistance recipients with additional subsidization, in the form of:
 - Grants
 - Loan principal forgiveness
 - Negative interest loans
- Availability of additional subsidization is limited
- States will determine the criteria for the distribution of additional subsidization

Grants

- Some states may chose to provide grants with ARRA funds
- Grants made by the CWSRF program are subject to the same requirements that apply to all EPA grants
 - Regulations at 40 CFR Part 31 apply to grants awarded to state and local governments.
 - Regulations at 40 CFR Part 30 apply to grants with nonprofit organizations and non-governmental for-profit entities
- This means CWSRF recipients that receive grants will have significantly more requirements than those that receive loans

Loan Principal Forgiveness and Negative Interest Loans



- CWSRF loan principal forgiveness and negative interest loans have significantly fewer requirements than CWSRF grants
- Loan principal forgiveness and negative interest loans can be equal in value to grants

Loan Principal Forgiveness and Negative Interest Loans



- For a \$100,000 project, the following assistance packages will cost a borrower ~\$80,000 over the life of a 20 year loan:
 - \$48,000 grant and \$52,000 loan at Market rate (average 4.6% in 2008)
 - \$100,000 loan at the average SRF rate (2.2% in 2008) with \$36,000 in principal forgiveness
 - \$100,000 CWSRF loan with -2.0% interest rate

Additional Requirements



- Fair wage provisions
 - Require that workers receive prevailing wages, as set by the Federal government
- Buy American provisions
 - Require that iron, steel, and manufacturing goods used in construction are made in the United States
- These provisions are generally complied with by contractors, so you will just have to make sure they are included in bids for construction
- Cannot purchase land, or fund projects at casinos or other gambling establishments, aquariums, zoos, golf courses or swimming pools.

Polling Question

- **What Green Reserve project category includes your current funding needs?**
 - A. Water efficiency projects
 - B. Energy efficiency projects
 - C. Green stormwater infrastructure projects
 - D. Environmentally innovative projects
 - E. None

Question & Answer Section

Have a question?

Submit it using the Q&A console or
use the Live Audio function.

3. Project types that can be funded by the CWSRF and ARRA



3. Project types that can be funded by the CWSRF and ARRA



- Examples and case studies of green projects eligible for CWSRF ARRA funding
- Developing your project(s) for CWSRF ARRA funding
- Questions and answers



Four Categories of Green Reserve Projects



- Projects with **water efficiency** components
- Projects with **energy efficiency** components
- **Green (stormwater) infrastructure** projects
- **Environmentally innovative** projects

Water Efficiency

- Example project types:
 - Installation of water meters
 - Retrofit or replacement of water using fixtures, fittings, equipment, or appliances
 - Efficient landscape or irrigation equipment
 - Systems to recycle gray water
 - Reclamation, recycling, and reuse of existing rainwater, condensate, degraded water, stormwater, and/or wastewater streams
 - Collection system leak detection equipment

Water Efficiency

- Example project: Cheyenne, WY
 - \$40 million CWSRF loan to renovate and upgrade water reclamation facilities to remove ammonia
 - Reclaimed water meets WDEQ standards for land application to irrigate green spaces in community
 - Ball fields
 - Greenways

Water Efficiency

- Example project: Charlotte-Mecklenburg, North Carolina
 - \$750,000 CWSRF loan currently being executed to purchase and install water efficient toilets
 - Includes \$325,000 in principal forgiveness from ARRA
 - Toilets will be installed both in public facilities and private homes
 - Part of the implementation of the Comprehensive Conservation Management Plan for the Albermarle/Pamlico Sound National Estuary

Energy Efficiency

- Example project types:
 - Energy efficient retrofits and upgrades to pumps and treatment processes
 - Leak detection equipment for treatment works
 - Producing clean power for treatment works on site
 - Wind
 - Solar
 - Hydroelectric
 - Geothermal
 - Biogas powered combined heat and power

Energy Efficiency

- Example project: Bucksport, ME
 - CWSRF loan used to construct a CSO treatment facility incorporating innovative, low-energy swirl concentrator technology
 - Facility is located at the former site of old, derelict buildings that were a community eyesore



Energy Efficiency

- Example project: Beebe, Arkansas
 - CWSRF loan to replace pump stations with gravity lines
 - Previous study found that several pump stations would not be necessary if interceptors were rerouted
 - System now uses significantly less electricity as fewer pump stations are being maintained

Energy Efficiency

- Example project: Delhi Charter Township, MI
 - \$9.85 million CWSRF loan to increase POTW's capacity for processing biosolids
 - Stabilization process for biosolids produces methane gas
 - Captured methane will fuel two microturbines
 - Generating up to 60 kW of energy
 - Onsite electricity and heat production will save the township approximately \$30,000 per year

Energy Efficiency

- Example project: Atlantic County, NJ
 - \$2.25 million CWSRF loan to install solar panels at its wastewater treatment facility
 - 660,000 kwh of electricity generated each year
 - Equal to electricity for 62 homes
 - Equal to 388 barrels of crude oil per year
 - Energy costs savings projected at \$115,000 per year



Green Infrastructure

- Example project types:
 - Green streets
 - Water harvesting or reuse
 - Wet weather management systems for parking areas
 - Porous pavement
 - Bioretention
 - Trees
 - Green Roofs
 - Hydromodification to restore:
 - Riparian buffers
 - Floodplains
 - Wetlands
 - Downspout disconnection
 - Comprehensive street tree or urban forestry programs
 - Other green stormwater system retrofits

Green Infrastructure

- Example project: Cohasset, MA
 - CWSRF loan to treat stormwater runoff prior to entry into the town's sewers
 - 45 rain garden bioretention cells and several vegetated swales across town
 - Resulted was:
 - Reduction in the level of contaminants in collected stormwater runoff
 - Reduction in collected runoff volume



Green Infrastructure

- Example project: Rockville, MD
 - \$1.4 million CWSRF loan funded the planning, design, and restoration of the main stem of Watts Branch
 - Repayment from Rockville's Stormwater Fund
 - Restoration included:
 - Enhancing existing wetlands
 - Restoring a stream buffer
 - Stabilizing 4,000 feet of eroding stream bank
 - Upgrading storm drain outfalls
 - Protecting existing gas and sewer utilities



Green Infrastructure

- Example project: Seattle, WA
 - \$2.7 million CWSRF loan to install natural drainage elements in the High Point urban retrofit project
 - Bioswales
 - Compost amended soil reservoirs
 - Porous pavement
 - Help protect water quality in an urban creek with an endangered salmon population
 - 10% of Longfellow Creek watershed restored to conditions comparable to rural

Environmentally Innovative Projects



- Example project types:
 - Green infrastructure or low impact development stormwater projects
 - Wetland restoration or constructed wetlands
 - Decentralized solutions to existing deficient systems
 - Water reuse projects that:
 - Reduce energy consumption
 - Recharge aquifers
 - Reduce water withdrawals
 - Water quality portion of hydrologically sustainable landscaping and site design
 - Projects that use water balance approaches
 - Projects with climate change mitigation components
 - Projects that incorporate differential uses of water based on treatment levels
 - Integrated water resource management projects

Environmentally Innovative Projects



- Example project: Orange County, CA
 - \$162.9 million CWSRF loan to implement a groundwater replenishment system
 - Highly treated wastewater will be pumped to recharge basins where it will percolate into the ground and blend with the County's other sources of groundwater



Question & Answer Section

Have a question?

Submit it using the Q&A console or
use the Live Audio function.

4. Applying for CWSRF financing



Developing Green Reserve Projects



1. Determine how to best address your water quality problem
2. Estimate project costs and timeline
3. Identify a borrower
4. Determine repayment source
5. Develop an application

1. Determine How to Best Address Your Water Quality Problem

- Not all water quality problems are best addressed by green projects, but many are
- Reasons green solutions could be right for your project include:
 - Water and energy efficiency components can save you and your users pumping and usage costs
 - Low impact development often has lower associated operation and maintenance costs and generally needs to be replaced/rehabilitated less often
 - Recycling or replenishing projects protect other sources of water, such as local aquifers
 - Wetland or riparian restoration can reduce the need for costly stormwater infrastructure

2. Estimate Project Costs and Timeline



- Determine how much it will cost to complete your project and when your project will be ready to begin construction
 - Most borrowers hire a contractor to help with these estimate
 - Engineers
 - Landscape architects
- Green Reserve project must be under contract or construction by February 17, 2010

3. Identify a Borrower

- CWSRF projects must be sponsored by an entity that is willing to take on a loan
 - Most projects are developed and sponsored by the communities that develop them
 - NGO's, homeowners and farmers are also eligible borrowers
- Many projects have used creative methods to repay loans
 - For example, member dues as repayment source for an NGO's loan
- If you do not have an income stream that can be devoted to loan repayment, work with the community where your project is planned to find a willing sponsor
- This may occur concurrently with task 2 and/or task 4

4. Determine a Repayment Source



- There are many sources of income that CWSRF programs may accept as repayment sources for loans. These include:
 - Usage based water bill charges
 - Special assessments
 - Mobile home park rental revenues
 - Home owner association assessments
 - Water district fees
 - Farming revenues
 - Non-profit membership fees
 - Home owner fees
 - Landfill fees
 - For profit company payments
 - Property tax revenue



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5. Develop an Application



- First element is a pre-application for placement on the state's CWSRF Project Priority List
- Once a project is on the Priority List, the borrower can complete the project application

The Pre-Application

- Communities interested in receiving CWSRF funding start by completing a pre-application
- States use information in pre-applications to rank projects based on priority criteria
 - Each state develops its own priority criteria
 - Examples of common priority criteria include financial need, water quality benefits, and readiness-to-proceed
- Projects must be placed on the state's Project Priority List prior to becoming eligible for funding
 - Priority List is included in the year's Intended Use Plan

The Pre-Application

- Pre-applications are different in each state, but required information generally includes:
 - Description of proposed project
 - Descriptions of the borrower's current water quality management system
 - Description of the water quality problem to be addressed with the project
 - Project cost estimates
- Pre-applications rarely include information that is not being collected already for a proposed project

The Application

- States choose projects from the Project Priority List to fund each year
 - States do not have to fund in priority order
- Projects that qualify for funding are invited to submit applications for funding
- Applications are different in each state, but generally require both standard and CWSRF-specific information

The Application

- Standard information that is required as part of a CWSRF application includes:
 - Budget information
 - Schedule for the expenditure of funds
 - Financial plan for loan repayment
 - Planning and design documents

The Application

- Additional, CWSRF-specific information is also generally required:
 - Environmental review documentation
 - Description of project's water quality benefits
 - Affidavits of compliance with required environmental/civil rights statutes (federal cross-cutters)

Environmental Review



- Many projects do not have to complete a full environmental review
- These project can receive a **Categorical Exclusion** from their state CWSRF programs if:
 - The project will not individually, cumulatively overtime, or in conjunction with other Federal, State, local or private actions have a significant effect on the quality of the human environment

Environmental Review

- For projects that do not qualify for a categorical exclusion, a full environmental review is required
- Submit an Environmental Information Document (EID), which includes:
 - Project description and designated study/project area
 - Existing and future direct, indirect, and cumulative environment impacts of project
 - Analysis of alternatives, including no action
- State will issue a Finding of No Significant Impact (FONSI) or require project modifications and an Environmental Impact Statement to qualify for financing
- Contractors generally assist assistance recipients in completing the EID

Environmental Review

- Many green projects receive categorical exclusions
- This is because they generally have one of the following characteristics:
 - Low impact design
 - System rehabilitation or rehab
 - Functional replacement of existing infrastructure
 - Onsite solutions in communities with less than 10,000 citizens

Federal Cross-Cutters

- Borrowers must also certify compliance with Federal cross-cutting legislation
- Much of this legislation is environmental, and will be covered by a CE or EA
- Others are civil rights related, and requires a series of non-discrimination assurances that your community likely already complies with
 - Generally requires only the addition of some language to construction and design contracts

The Application

- CWSRF staff are available in each state to help communities with the application process
- Find your state contact at:

<http://www.epa.gov/owm/cwfinance/cwsrf/contacts.htm>



Polling Question

- **At what stage in the application process would assistance from your state CWSRF program be most helpful?**
 - A. Determining how to best address water quality needs
 - B. Estimating cost and timeline
 - C. Developing repayment sources
 - D. Planning and Design
 - E. Completing the pre-application or application
 - F. Environmental review and federal cross-cutters

Question & Answer Section

Have a question?

Submit it using the Q&A console or
use the Live Audio function.



Contact Information



- Questions?
 - Email the EPA Headquarters Clean Water SRF:

Katie Hess at:

Hess.Katherine@epa.gov