



## **Decentralized/Onsite Wastewater Projects and Programs**

### **Opportunities for Funding**

The Clean Water State Revolving Fund (CWSRF) is authorized under the Clean Water Act (CWA), which also authorizes discharges to the waters of the United States through National Pollutant Discharge Elimination System (NPDES) permits. Centralized wastewater treatment systems that discharge to surface waters are regulated through NPDES permits which set effluent limits to protect and maintain the water quality of surface waters. The CWSRF is a well-established funding program used for centralized wastewater treatment projects throughout the country, providing loan money to repair failing infrastructure that adversely impacts surface water quality. Historically the CWSRF funding system has been used for centralized wastewater treatment systems. And while decentralized/onsite wastewater treatment systems are legitimate wastewater infrastructure, they are not authorized under the CWA.

The authority for regulating onsite systems comes from a number of places. One authority is each state's individual sanitary code. Another authority is the Underground Injection Control Program under the Safe Drinking Water Act if the system serves more than 20 people per day. These systems can also be authorized under state laws that regulate discharges to the ground (if a state has enacted such a law). Onsite systems can also be categorized as a nonpoint source. The cumulative effect of these systems can impact the water quality of watersheds by loading the water table with constituents that can be discharged to streams and lakes through baseflow.

Because onsite systems do not have a clear link to the CWSRF loans, very few onsite/decentralized projects get funded. Support and funding for onsite wastewater treatment projects has been left to the individual homeowners, business owners, and other small groups with onsite wastewater treatment (OWT). A few states have made a concerted effort to extend access to CWSRF benefits to onsite owners and those that have program for onsite/decentralized projects typically incorporate funding from other state sources with only a portion of the funding coming from the CWSRF. The Clean Watersheds Needs Survey has acknowledged the significance that onsite systems play in the nation's wastewater infrastructure by providing onsite/decentralized needs with a dedicated category. However, this category of needs is still considered "un-official" because it is not strictly CWA authorized.



OWT is needed to provide adequate wastewater treatment to help ensure public health and source water protection. According to the U.S. Environmental Protection Agency, approximately one-fourth of the population in the U.S. is served by OWT, and an estimated one third of all new growth will use OWTs. There is a real need for a nationwide effort to provide or improve access to this funding source and others for this currently underserved segment of the economy and population. How is this important sector doing in securing funding under EPA, the U.S. Department of Agriculture and the state CWSRF programs? How are the funding channels defined and assessed for effectiveness in reaching this sector? This paper is a call to find the answers to these questions and develop approaches to facilitate funding for this infrastructure sector.

## **Background**

EPA launched an effort in the late 1990s to provide educational tools to help encourage the onsite sector's growth and development. In its 1997 *Response to Congress*, EPA declared that adequately managed onsite or decentralized wastewater treatment systems are viable long-term, energy-efficient and sustainable wastewater solutions. Additionally, the American Recovery and Reinvestment Act of 2009 (ARRA) included the establishment of the Green Project Reserve (GPR) that described decentralized systems as categorically green project types. However, in terms of successful funding, only Ohio and West Virginia have presented a few onsite or decentralized projects on their ARRA funding lists. A few other states, like Minnesota, have established additional channels for onsite funding (see the appendix beginning on page seven).

In the 1990s, EPA recognized that there were successes in CWSRF funding for small communities in several states. However, these successes may not have included the neediest communities because small communities were defined as those having up to 3,500 people while EPA's program analysis used communities of 10,000 people. Decentralized systems are proven and effective in a variety of sizes and structures including communities serving fewer than 3,500 people. The ability to tailor systems to each individual community allows for water to be recycled more efficiently, benefiting the local economy and the environment. Because these communities and projects are much smaller than most projects on the various funding lists, state and federal funding coordinators are simply not familiar with the benefits of onsite systems. These projects are being missed and underrepresented in the current funding dialogue for small communities and GPR projects.



As evidence of this problem, nationwide only 14 percent of funding was awarded for Environmental Innovative (EI) projects, a category under the GPR. Out of all the states that funded EI projects, only West Virginia and Ohio reported that decentralized/onsite systems were funded under this category. How do we provide better access to needed funding for a wastewater onsite infrastructure sector that serves over 25 percent of U.S. homes?

Based on the nature of decentralized and onsite systems, inclusion in the new GPR classification is appropriate and may provide a new opportunity for funding these projects. With the current focus and dedication of funds on this new classification, states that had not previously funded decentralize/onsite may be able to expand or modify their programs to include it.

### **Challenges**

Numerous challenges make it difficult for state decentralized/onsite programs to take advantage of (enable the use of) CWSRF funding.

- Decentralized/onsite program coordinators are unfamiliar with the CWSRF program and who to contact;
- CWSRF program coordinators are unfamiliar with decentralized/onsite programs;
- Decentralized/onsite projects are not a priority of state CWSRF agencies/programs;
- Consultants and small communities typically do not give serious consideration to decentralized/onsite projects for funding;
- Legal impediments restrict public funding of private systems (can be overcome);
- Process of getting projects on CWSRF Intended Use Plans and Project Priority Lists so they can be funded is difficult;
- Project scoring puts smaller decentralized/onsite systems at a disadvantage;
- Smaller communities need an upfront funding source, preferably grant, to identify and develop possible onsite solutions;
- States need a sewage alternative analysis and planning requirements equally evaluating onsite solutions and centralized sewer;
- The Water Environmental Research Foundation has identified “Barriers to Evaluation and Use of Decentralized Wastewater Technologies and Management,” in a report by the same name, some of which relate to consultant’s and community’s ability to access consistent funding and professional services.



## **Overcoming Challenges**

A percentage of the GPR must be dedicated to decentralized systems. States have discretion on how to administer or target GPR funds in part or in its entirety. This may help incentivize Project Priority List applications for onsite systems by purposely targeting certain program types that have been historically under funded. It also provides an avenue for the smaller onsite/decentralized projects to compete with the larger, traditional projects. Onsite/decentralized system customers contribute to the CWSRF funds through their tax dollars. This dedication is a way for these tax payers to receive their share of the CWSRF funds.

States could dedicate all or part of the permitted administration funds (up to 4 percent of federal cap grant) to developing better delineated eligible costs, revisions to scoring system, hire onsite coordinators to increase onsite use, including more alternative analysis and program promotion.

States may be able to provide additional interest rate discount from the conventional CWSRF rate to help encourage more honest analysis of onsite options. This would also accomplish providing more funding into projects in micro-communities that have economy of scale issues related to providing collection and treatment due to density and population base disadvantages.

## **Conclusions and Call to Action**

We are concerned and disappointed that states have not effectively used available funding sources for onsite systems. Small communities have suffered from their lack of inclusion in these financial proceedings. We call EPA to encourage and states to seek improvements in their programs to support funding for onsite systems.

Some states have successfully used SRF funds for decentralized or onsite projects. Based on the nature of decentralized and onsite systems, inclusion in the new GPR classification is appropriate and emphasis is needed to encourage and provide a new opportunity for funding these projects. A greater focus and dedication of funds for onsite projects will create impetus for states that had not previously funded decentralized or onsite projects to expand or modify their programs to provide serious consideration of onsite solutions.



## **For More Information**

The National Environmental Services Center (NESC) provides a number of free materials at: [www.nesc.wvu.edu](http://www.nesc.wvu.edu). NESC's technical staff, available by calling (800) 624-8301, has information about funding sources and the federal and state levels.

The U.S. Environmental Protection Agency offers the following three publications:

The *Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems* is available at:

[www.epa.gov/OW-OWM.html/cwfinance/cwsrf/progress.pdf](http://www.epa.gov/OW-OWM.html/cwfinance/cwsrf/progress.pdf)

The 1997 *Report to Congress—Paying for Water: Managing Funding Programs to Achieve the Greatest Environmental Benefit* may be downloaded from:

<http://cfpub.epa.gov/owm/septic/index.cfm>

The Clean Water SRF: ARRA Reporting Summary Project List maybe accessed at: [www.epa.gov/water/eparecovery/docs/GPR\\_Funding\\_Status\\_3-17-2010\\_Final.pdf](http://www.epa.gov/water/eparecovery/docs/GPR_Funding_Status_3-17-2010_Final.pdf)

The Water Environment Research Foundation report *Barriers to Evaluation and Use of Decentralized Wastewater Technologies and Management* is available at:

[www.decentralizedwater.org/research\\_project\\_04-DEC-2.asp](http://www.decentralizedwater.org/research_project_04-DEC-2.asp)

This document has been prepared by the State Onsite Regulators Alliance (SORA) in conjunction with the National Environmental Services Center (NESC) at West Virginia University. The following SORA members participated in the development of this paper:

Ed Corriveau, P.E., Manager, Pennsylvania Water Management Program, SCFO Wastewater Planning and Finance (SRF) Section  
Eleanor Krukowski, P.G., Supervisor, New Jersey Onsite Wastewater Management Unit, Bureau of Nonpoint Pollution Control, Division of Water Quality  
Bill Dunn, Clean Water Revolving Fund Coordinator, Minnesota Pollution Control Agency



If you have questions or need more information please contact:

Technical Services  
National Environmental Services Center  
West Virginia University  
PO Box 6064  
Morgantown, West Virginia 26506-6064

(304) 293-4191 (phone)

(304) 293-3161 (fax)

[www.nesc.wvu.edu](http://www.nesc.wvu.edu)



## Appendix

# Decentralized/Onsite Wastewater Projects and Programs Opportunities for Funding Paper: Successful State Programs

Updated 5/16/11

### **Minnesota**

Minnesota's program is a model on how to provide better access to funding. "Prioritizing and Funding Right-Sized Solutions."

#### **Minnesota's Financial Assistance Approaches to implementing decentralized solutions:**

Based on Minnesota county reports over the past several years, it is estimated that approximately 500,000 Sub-surface Sewage Treatment Systems (SSTS) currently are operating in this state or about 25% of the wastewater treatment types. It is also thought that SSTS provides service to about 75% of the land area. Non-compliance (imminent public health treats, failure to protect groundwater and set-back violations) varies greatly across the state and has fluctuated at around 50% statewide for the past many years. In the past dozen years, fundamental changes on a host of issues has helped to evolve Minnesota financial assistance programs

**Increased regulatory framework:** Administrative rules governing the state's SSTS program have been recently amended in several substantial ways. Training classifications have been expanded and technical requirements have been made more comprehensive.

**Statewide inventories of problem areas:** In addition to the county annual reports, twice in the last decade MPCA coordinated a statewide inventory of known or suspect non-compliance. These areas are being prioritized by regional teams.

Fact sheet

[http://www.pca.state.mn.us/index.php?option=com\\_docman&task=doc\\_download&gid=8761&Itemid=](http://www.pca.state.mn.us/index.php?option=com_docman&task=doc_download&gid=8761&Itemid=)

**Robust SRF planning on alternatives:** Although planning for the full range of alternatives – including SSTS - has always been a required component since the SRF's inception, administrative rule amendments in 2006 strengthened to ensure that SSTS options were truly evaluated. Often referred as the Wastewater Hierarchy:

## Wastewater Hierarchy



### Unsewered Area Alternative Analysis

- 1) Replace failed SSTS with new SSTS.
- 2) Decentralized cluster SSTS.
- 3) Connect to existing facility with capacity.
- 4) Connect to a facility which requires an expansion.
- 5) Construct a new wastewater treatment facility.

Note: Solution may be a combination of approaches

**Project Priority List (PPL):** All projects seeking any federal or state funding needs to be listed on the PPL. This has allowed the state to supplement SRF funds with other state funds (capital bonds or sales tax receipts) to leverage other program funding. SSTS project are eligible for listing and about 25% of the 381 projects on the PPL involve SSTS.

**State Revolving Fund (SRF):** This fund currently has over \$2 billion in loans with a typical annual distribution of \$100 million to \$250 million in loans. Principal forgiveness is now included in the 2010 capitalization grants from EPA. SSTS projects are eligible and have received funding in the past.

**Green Project Reserve of the SRF:** Decentralized solutions met the USEPA's categorical definition of environmentally innovative activities. These types of projects are eligible to apply to an additional SRF program account.

**TMDL Grants:** SSTS project that are made necessary by a Total Daily Maximum Load study/implementation plan are eligible to apply for up 50% of the project collection and treatment costs up to a maximum of \$3 million. In the current biennium there was over \$21 million available in the TMDL grant program.





**Small Community Wastewater Grant and Loan Program:** Decentralized applications are the focus of this program. There are Technical Assistance Grants for up to \$40,000 to help conduct onsite or cluster evaluation including soils analysis in developing a Community Assessment Report (CAR). Construction funds are available – either 50% grant and 50% one percent interest rate loan or 100% loan depending on income.

**Ag BMP funds:** For over a decade, Minnesota has devoted state funds and SRF repayment funds to a program that will fund a whole range of private water quality improvement projects. Funds are provided to Soil and Water Conservation District that make arrangement with one local lending institution to establish a funding stream for rural residents to apply for low interest loans. SSTS are eligible projects.

## **Delaware**

**Delaware’s SRF Program includes Septic Rehabilitation Loans for Individual Home Repairs.** The Septic Rehabilitation Loan Program provides a source of low interest financing for repairing or replacing failing septic systems or cesspools with onsite wastewater disposal systems that will function in an environmentally sound and cost effective manner.

This program is managed by the Financial Assistance Branch with technical assistance from the Underground Discharges Branch. Eligibility is open to property owners with onsite wastewater disposal systems that need rehabilitation in order to meet regulatory requirements that meet program income guidelines, and where the applicant demonstrates the ability to repay the loan. There is a non-refundable application fee of \$15 to \$16.05 per individual or married couple that covers the cost of the applicant's credit history report.

Financing is available at an interest rate of 3 or 6 percent depending on income, can be repaid over 20 years with no prepayment penalty, with a minimum loan of \$1,000 and a maximum loan of \$25,000 for individual systems, and a maximum loan of \$250,000 for community or mobile home park systems. Eligible costs include:

- Site evaluation fees.
- Septic system design fees.
- Permit fees.



- Construction costs.

### **New Septic Rehabilitation Funding Option**

A new Septic Extended Funding Option (SEFO) has been established for homeowners who do not qualify for the Septic Rehabilitation Loan Program. SEFO can be used when the current program cannot provide all the funds necessary to assist an applicant.

All SEFO loans are interest-free and secured by a due-on-transfer mortgage lien that stipulates full loan repayment when the property is sold or transferred. To receive funding, loan recipients must sign a mortgage lien and loan note. No monthly payments are required and SEFO loans will be forgiven after 20 years, the useful life of the septic system.

For more information regarding Delaware's SRF program and contacts please go to this link. <http://www.wr.dnrec.delaware.gov/Services/Pages/FinancialAssistanceBranch.aspx>

### **Iowa**

Iowa's intent was to provide low interest loans to homeowners *outside the boundaries of cities* for improving onsite wastewater treatment systems. They established a dedicated fund, the 'Onsite Wastewater Systems Assistance Fund' OSWAF. Section 603c, Title VI of the Clean Water Act allows the use of SRF funds for a non-point source pollution management plan.

Funds are set aside annually via the Intended Use Plan (IUP) for the CWSRF. A financial agent chosen by RFP maintains the separate operating account. Interest rates are 0 to 3% with no maximum loan amounts and a 10-year repayment period. There are no income thresholds.

Counties are eligible too! Counties need to meet minimum standards, provide documentation and provide for long term management of systems installed with OSWAF. 92 of their 99 counties are participating with 550 loans approved for approx. \$3.5 million (avg. \$6,300) and there are no loan defaults.