United States
Environmental Protection
Agency

Funding Biosolid Projects Using the Clean Water State Revolving Fund

The Problem

Biosolids are primarily organic solids left from municipal wastewater treatment processes that can be beneficially recycled. About nine million dry metric tons of biosolids are produced each year from municipal wastewater treatment plants in the United States. The proper management of the treated biosolids and other matter generated by the processing of more than 32 billion gallons per day of municipal wastewater poses a challenging disposal problem for all of us. In the past, biosolids have been put into landfills, the ocean, or incinerated. Today, we understand that land application is a generally preferred option as it beneficially utilizes the recyclable components of wastewater.

Biosolid recycling not only saves local and state governments significant funds through lower disposal costs and sales of biosolid-derived products, but also supplies valuable nutrients and soil amendment benefits to the land. Through its low or no-interest loan program and other assistance options (refinancing, purchase or guaranteeing local debt, and purchasing bond insurance), the Clean Water State Revolving Fund (CWSRF) can be a valuable resource for supporting biosolids projects. Years of research and practice have repeatedly demonstrated that biosolids recycling is safe and that food crops grown on land fertilized with biosolids are safe to eat.

Biosolids Use and the CWSRF Program

The CWSRF programs in every state and Puerto Rico work like banks. Federal and state contributions are used to capitalize or set up the programs. These assets, in turn, are used to make low or no-interest loans for important water quality projects. Funds are repaid to the CWSRFs over terms as long as twenty years. Repaid funds are then recycled to fund other water quality projects. The CWSRF can help to provide the financial resources to fund biosolid projects. Some examples of biosolid projects are:

- Processing facilities consisting of:
  - Composting
  - Biosolid pelletizing
  - Incineration
  - Alkaline stabilization
- Handling equipment for transportation (trucks, rail, conveyance systems, etc.)
- Application equipment
- Storage facilities
- Bio-gas cleanup and use equipment

Capacity of the CWSRF

Nationally, the CWSRF has in excess of $34 billion in assets (includes loans already made and current funds available to make loans). Currently, the CWSRF is funding water quality projects at a rate of over $4 billion per year.

Since 1989, the CWSRF program has funded over 3,900 nonpoint source projects, investing more than $1.2 billion to clean up polluted runoff.

Getting a Project Funded

The Clean Water Act (CWA) of 1987 authorized the CWSRF to fund point-source (wastewater treatment works), nonpoint sources, and estuary projects. Biosolid projects may be developed as a component of a wastewater treatment works project. A wastewater treatment works project must be publicly owned to receive CWSRF funds. However, it may be possible to fund biosolid projects as nonpoint source projects if the wastes being treated are correcting a nonpoint source problem. Since the CWSRF program is managed by the states, project funding varies by the priorities, policies, and laws within each state. Eligible applicants also vary by state. In seeking a loan, a first step is to contact your state CWSRF representative. The list of CWSRF state representatives can be found on our website (www.epa.gov/owm/finan.htm).

Sources of Loan Repayment

Each state must approve a source of loan repayment as part of the application process. Though finding a source of repayment may prove challenging, it does not have to be burdensome. Many users of the CWSRF have demonstrated a high degree of creativity in identifying sources of loan repayment. The source of repayment need not come from the project itself. Some possibilities include:

- developers fees
- recreational fees (fishing licenses, park entrance fees)
- stormwater management fees
- wastewater user charges
- donations or dues made to nonprofit groups and associations
- sale of the biosolids

Learning by Example

In **Westmoreland County, Pennsylvania** a CWSRF loan is being used by a private pretreatment facility to pump out individual septic systems and treat the wastewater prior to land application as biosolids. Because the project was built to treat wastes from septic systems, it was funded as a nonpoint source project, which allows for private ownership. Its activities are an integral aspect of solving a nonpoint, septic system problem.

An SRF wastewater treatment works loan was used to fund a composting facility for **Charleston, West Virginia.** Biosolids will be mixed with yard waste and recycled compost to yield a high-grade compost product. Significant cost saving will be gained from not having to haul yard waste and biosolids to the landfill, in addition to saving the limited landfill space for non-recyclable waste.

The **Massachusetts Water Resources Authority** used a SRF loan to expand its biosolids pelletizing facility. The pellets are given away for public sites such as parks and golf courses but are sold to commercial users. Although this project was funded as a municipally owned facility, it could have been funded as either a point or nonpoint source project.

Lenoir, North Carolina used $3.9 million in SRF funds to develop an advanced wastewater treatment system with nutrient removal and associated biosolids management facilities. About five tons of biosolids are processed daily through a lime stabilization/thermoblend process. In 1997 and 1998, the city began blending composted yard and leaf waste with the biosolid and lime mixture. The product is marketed to local nurserymen, farmers, and ranchers who value the material sufficiently to pay some of the costs of production and all the costs of transportation and spreading.

Challenges Ahead

EPA has been encouraging states to open their CWSRFs to the widest variety of water quality projects, while addressing high priority projects in targeted watersheds. Those interested in advancing the recycling of biosolids should seek out their CWSRF programs, gain an understanding of how their state program works, and participate in the annual process that determines which projects are funded.

For more information on the CWSRF, or for a program representative in your state, contact:

The Clean Water State Revolving Fund Branch
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1201 Constitution Avenue, NW (Mail Code 4204M)
Washington, DC 20004
Phone: (202) 564-0752 Fax: (202) 501-2403
Internet: www.epa.gov/owm/finan.htm

For program information on biosolids, contact:

The Municipal Technology Branch
U.S. Environmental Protection Agency
ICC Building
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