



Funding Shellfish Restoration and Remediation Projects with the Clean Water State Revolving Fund

The Problem

Shellfish filter the water to feed and can extract and concentrate microorganisms many fold over the concentrations in the water. Since shellfish are often eaten raw, the quality of the water they are harvested from must be of pristine quality. The principal point source factors responsible for harvest limitations for shellfish growing areas are wastewater treatment plants and combined sewer overflows, boating activities and marinas, industrial facilities, and the direct discharge of untreated sewage. Nonpoint source factors are urban runoff, malfunctioning on-site septic systems, agricultural and feedlot runoff, and wildlife. These sources are generally consistent with the information reported to the National Oceanic and Atmospheric Administration in the 1995 National Shellfish Register and in the Environmental Protection Agency's 1998 National Water Quality Inventory Report to Congress. According to the EPA Report, these sources have resulted in shellfish harvesting criteria not being met in 27% of surveyed state waters.

Shellfish Projects and the Clean Water State Revolving Fund

The Clean Water State Revolving Fund (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 CWSRF's over terms as long as twenty years. Repaid funds are then recycled to fund other quality projects. These CWSRF resources can help augment the financial resources currently available to fund the following types of shellfish restoration and remediation projects:

- ✓ Urban runoff
- ✓ Wastewater treatment plants and combined sewer overflows
- ✓ Nonpoint agricultural runoff
- ✓ Malfunctioning septic systems
- ✓ Pumpout stations for marinas and boating facilities

- ✓ Restoration of shellfish habitat including reef structure

Capacity of the CWSRF

Nationally, the CWSRF has in excess of \$30 billion in assets (includes loans already made and current funds available to make loans). Currently, the CWSRF is funding approximately \$3 billion in water quality projects each year.

Since 1989, the CWSF program has funded over 1200 nonpoint source projects, investing more than \$840 million to clean up polluted runoff.

Getting a Project Funded

The Clean Water Act (CWA) of 1987 authorized the CWSRF to fund publicly owned treatment works (§212), nonpoint source (§319), and estuary (§320) projects. As stipulated in §603(c) of the CWA, §212 projects must be publicly owned to receive CWSRF funds. Nonpoint and estuary projects, however, do not have this restriction. Included in a long list of eligible CWSRF loan recipients for NPS and estuary projects are community groups, individuals, agricultural associations and nonprofit organizations. Since the program is managed by the states, project funding varies according to the priorities, policies, and laws within each state. Eligible applicants also vary by state. Contact your state's CWSRF, NPS, or Estuary program for details (see end of next page).

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 unnecessarily so. Many users of the CWSRF have demonstrated a high degree of creativity in identifying sources of loan repayment. The sources of repayment need not come from the project itself. Some possibilities include:

- Fees paid by developers on other lands
- Recreational fees (fishing licenses, park entrance fees)

- Stormwater management fees
- Wastewater user charges
- Donations or dues made to nonprofit groups and associations

Learning by Example

The City of Port Townsend, Washington used a \$500,000 loan from the CWSRF to purchase the Winona Wetland and safeguard valuable shellfish beds. The CWSRF funds will be used for land acquisition and related activities to preserve the Winona Wetland, its buffers, and the critical drainage corridor between Winona Wetland and the Chinese Gardens Lagoon. This wetland is part of a larger system of wetlands discharging into Puget Sound.

Des Moines, Washington used a \$223,000 loan from the CWSRF to purchase a badly degraded wetland area and to prepare a design of a sediment trap/pond facility. The project will serve a dual purpose of providing flood protection by containing stormwater runoff, and acting as a preliminary filter by removing suspended solids. The removal of sediment and heavy metals will be protective of shellfish in Puget Sound.

The following are examples of shellfish projects, that while funded as grants under Section 319, would be potentially eligible for loans from the CWSRF.

The town of Harwich, Massachusetts is using a Section 319 CWA grant for remediation of a storm drain at the town wharf. The project will demonstrate the use of the “Storm Treat Systems” (mention of this technology does not imply endorsement by EPA) remediation technology to restore shellfish beds in a coastal environment.

In Port Fourchon, Louisiana, Louisiana State University utilized an innovative natural sand/soil bed in an upwelling injection field to remove fecal coliforms and reduce the environmental impact of wastewater. The effluent had been threatening local oyster beds.

The Three Rivers RC & D Council, Inc. has installed constructed wetlands as an alternative to the conventional septic tank system to address the pollution of nearby shellfish beds in Escambia Bay, Florida. The wetlands replace improperly functioning septic systems and provide an alternative where soil conditions cannot support septic systems.

A rock and reed filter beds system with chlorination was utilized by the **Jackson County Board of**

Supervisors in the Bangs Lake region of Mississippi to retrofit conventional on-site septic tanks. The malfunctioning sewage system had been contributing to the fecal coliform levels responsible for the closure of local shellfish growing waters.

Challenges Ahead

EPA has been encouraging the states to open their CWSRF’s to the widest variety of water quality projects, while addressing high priority projects in targeted watersheds. Improvements in water quality, based on the filtering capacity of shellfish, may justify the use of funding shellfish restoration projects under Section 319. Use of CWSRF funds to move the outfall of treatment plants from shellfish growing areas to less threatening sites also has potential. Those interested in cleaning up polluted runoff 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, please contact:

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