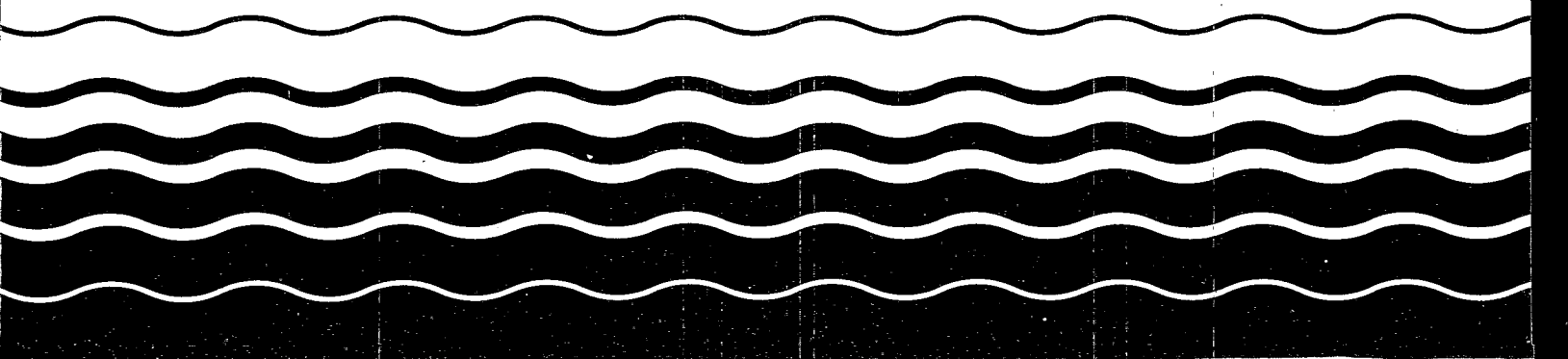
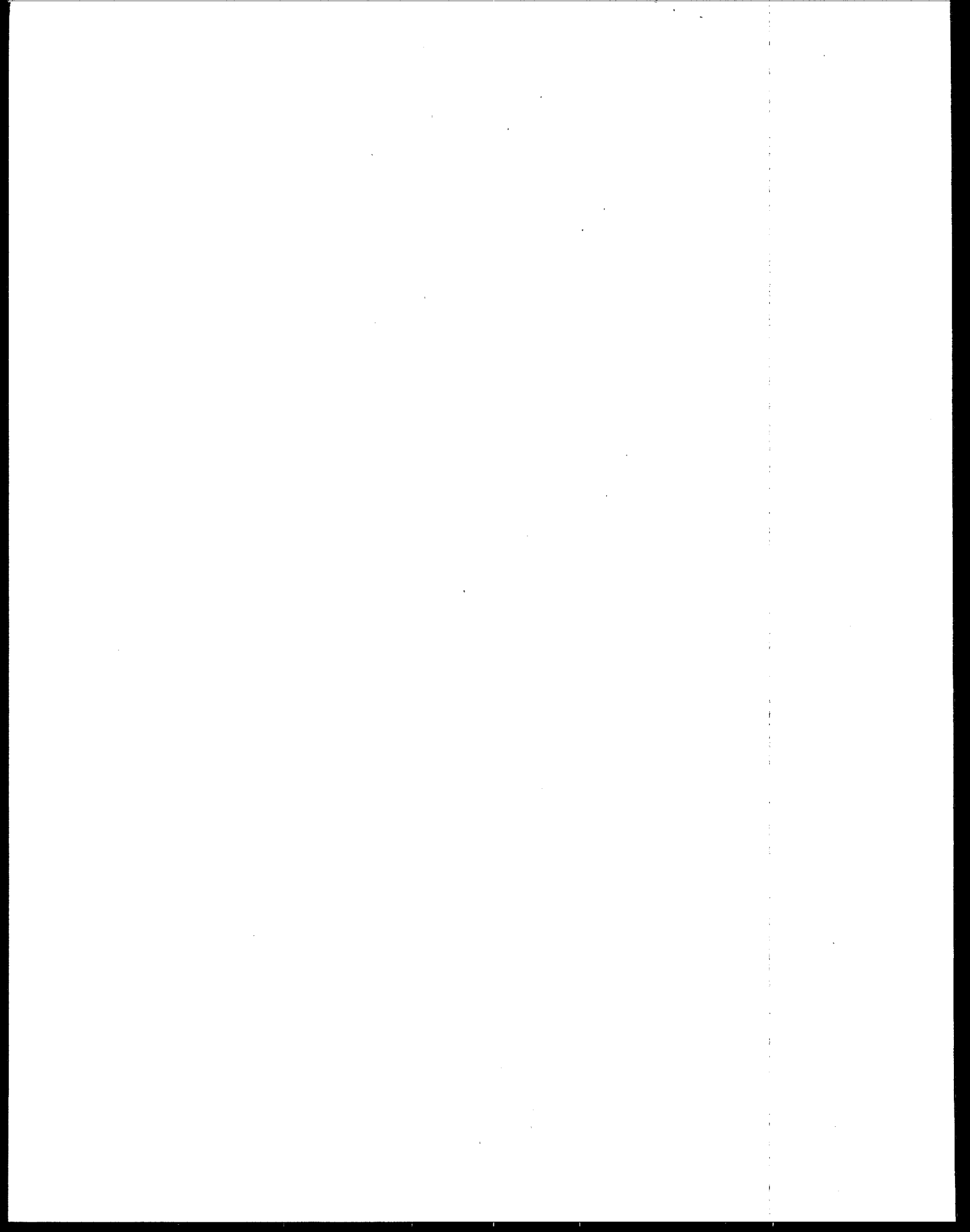




State Match Options For The State Revolving Fund Program

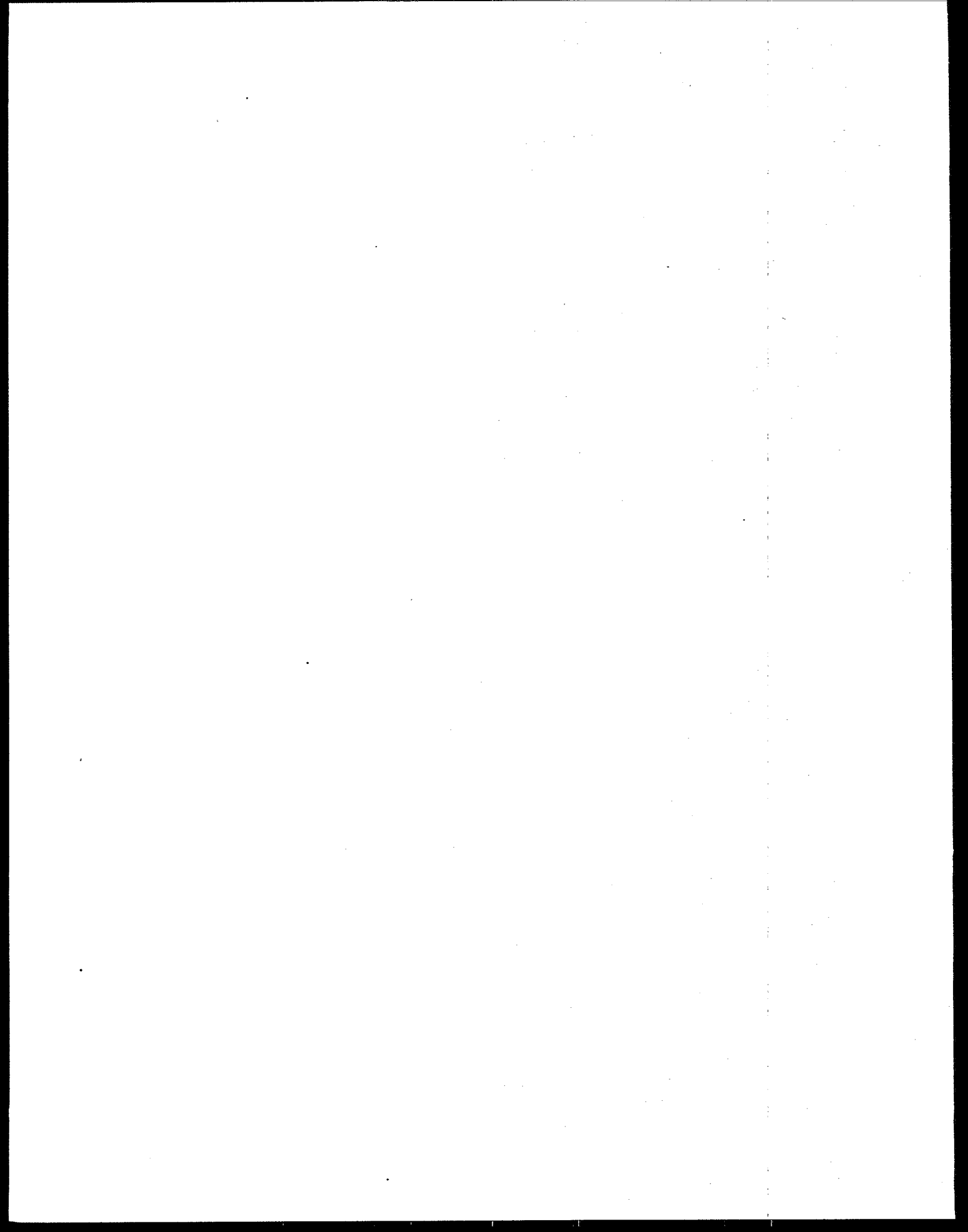




EPA 832-B-97-003
February 1997

**STATE MATCH OPTIONS FOR THE
STATE REVOLVING FUND PROGRAM**

U.S. Environmental Protection Agency
Office of Wastewater Management
Municipal Support Division
Washington, D.C.



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I. INTRODUCTION

The 1987 Amendments to the Clean Water Act (CWA) fundamentally changed the way the federal government provides financial assistance for water pollution control facilities. The CWA replaced the Construction Grants program with the State Revolving Fund (SRF) program, a state controlled and operated program to provide loans and other financial assistance for water pollution control projects. All fifty states and Puerto Rico are operating successful SRF programs. To date, nearly \$20 billion in funds have been committed to SRF programs. As of June 1995, SRF programs provided more than 3,200 loans totaling approximately \$14.5 billion for eligible water pollution control assistance.

The CWA requires states to provide matching funds to capitalize the SRF program. To participate in the program, states must provide an amount equal to or greater than 20 percent of federal capitalization grants. In keeping with the objective of providing states with maximum flexibility in designing SRF programs, the CWA allows states to provide match from a variety of sources. For example, match payments may be cash deposits made directly from state accounts or may come from proceeds of SRF bonds that are repaid with SRF interest earnings.

Since the beginning of the SRF program, most states have relied upon general fund appropriations as their source of match. However, in recent years the use of bonds as the source of state match has become more popular. For fiscal year 1996 SRF capitalization grants, seventeen states are using bonds for match.

There are a variety of factors that states consider when selecting a source for SRF matching funds. For example, states with unfavorable economic conditions might find it somewhat difficult to provide SRF match from available resources, and as a result, may look for other match sources. Conversely, states that are experiencing high levels of growth and strong economic conditions may have little trouble committing cash and future appropriations to meet SRF match requirements. Also, some states may, as a matter of policy, wish to further capitalize their SRFs by providing match in excess of the required 20 percent.

As conditions change states may find it necessary to reexamine their approach to providing matching funds. Should states use bonds for match? Are there other viable match options? This report is intended to help states that are asking these questions to review state match options. The report identifies and evaluates seven different state match options and discusses each option's effect on the SRF over time. The match options presented are also applicable to the new Drinking Water State Revolving Fund Program established by the Safe Drinking Water Act Amendments to 1996.

There are two primary sections that follow this introduction. The next section (Section II) of the report identifies and describes the various match options. Section III analyzes the effect of different options on the SRF.

II. DESCRIPTION OF MATCH OPTIONS

This section of the report describes alternative approaches that a state may take to provide match. The section addresses seven different match options that are in use today or have been used in the past by states. Reviewing these alternative approaches will help SRF managers determine which options are applicable and/or practical for their state.

Option I: General Appropriations From Available Funds

Many states (e.g., Hawaii and Virginia) use general appropriations from available funds as their match source. In many cases, state legislatures committed funds for the full initial SRF capitalization implementation period (through 1994) based on federal authorized funding levels authorized in the CWA and expected state allotments.

Figure 1 presents the flow of funds for the state appropriation match deposit process. States deposit match funds before or at the same time the SRF receives the federal grant payment. A federal grant payment is an increase to the funding ceiling available to the SRF and reflects projected project funding commitments.

When the source of state match is general appropriations, match deposits are most often cash deposits. This is a benefit to the SRF program because the interest earnings on the match funds remain in the SRF and will be available for loans or other financial assistance.

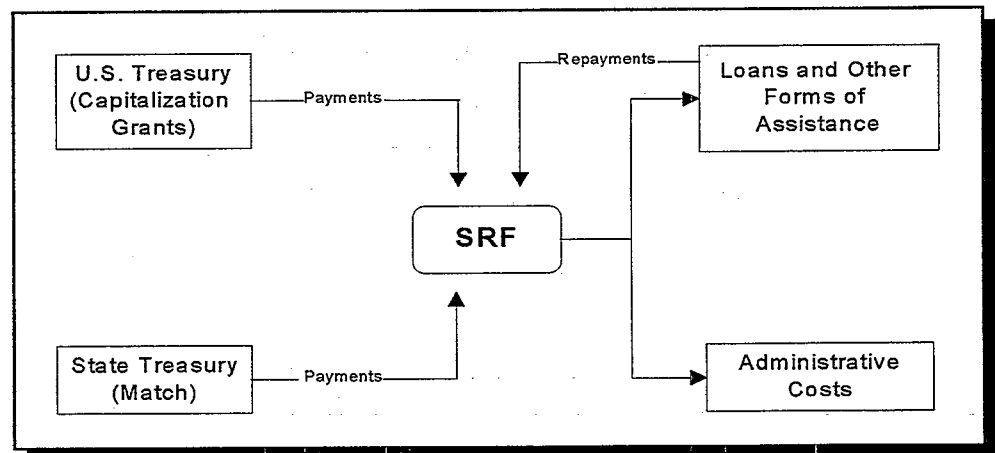


Figure 1 - State Appropriation Option

A state may also use a "Letter-Of-Credit" (LOC) mechanism to provide state match. In this approach, a state establishes a process similar to the federal process used to draw SRF funds as project construction proceeds. A LOC is a funding commitment pledged by the

state. As project construction progresses, SRF programs convert LOC funds to cash and disburse them to communities, who in turn pay vendors for work performed.

Using cash appropriations as the source of state match can result in funds being available for use by the SRF earlier than under other options. A potential disadvantage of this option is the risk that a state legislature might reverse or modify its decision to provide appropriations within the agreed to time schedule delaying the capitalization grant award.

Option II: General Obligation Debt

General Obligation (G.O.) debt of a state is comprised primarily of state bonds that are backed by the general taxing authority of the state. There are three different match options that use G.O. debt. Their effect on the SRF varies in terms of costs and administrative complexity.

Option II-A: G.O. Bond Proceeds

First, a state may issue G.O. debt and deposit the proceeds into the SRF for match. States repay the G.O. bonds with revenues collected in the future (e.g., state income tax). The state backs the bonds with its "full faith and credit."

In other words, the state pledges to raise the necessary funds through taxation and other revenue sources to repay the bonds. States using this approach include California and Pennsylvania. This option differs from using appropriations.

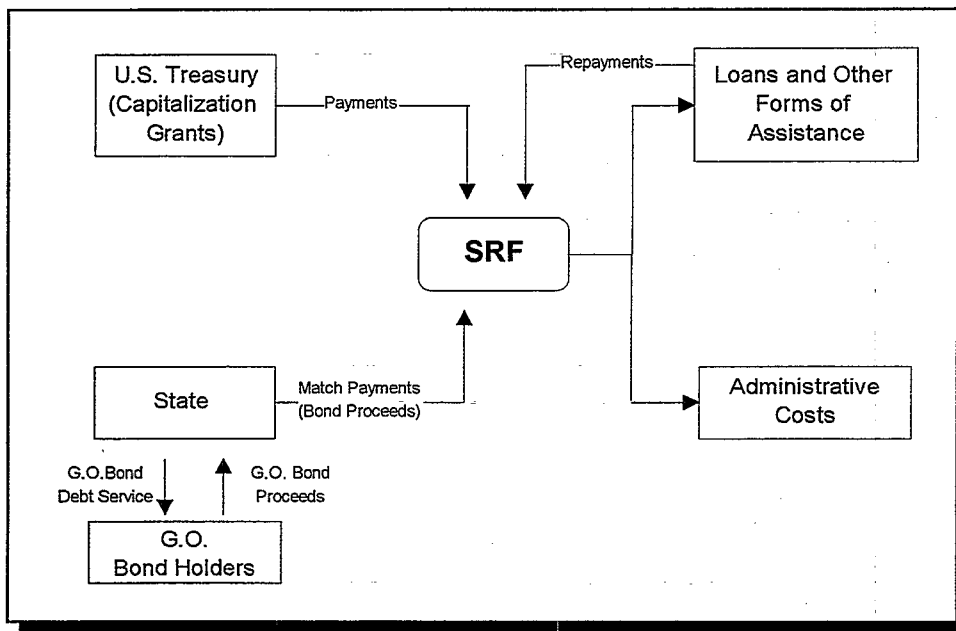


Figure 2 - State Match from G.O. Bond Proceeds

When a state uses G.O. debt, it pledges to repay the debt from future general fund revenues. In contrast to several other bond options described in this report, the bonds are not repaid from SRF interest revenues so the match funds remain as capital available for program uses. This option may result in additional managerial and administrative costs related to tracking the use of funds and demonstrating compliance with Internal Revenue Service regulations. A potential disadvantage of this option is the risk that a state legislature might reverse or modify its decision to appropriate funds that are scheduled to come from G.O. bond proceeds due to budget shortfalls.

Option II-B: G.O. Debt Repaid with SRF Revenues

A second approach that uses G.O. debt requires the SRF to pay the debt service for the general obligation debt. Figure 3 illustrates the G.O. match bond cash flow process. Wisconsin, Nevada, and Texas use this approach.

Because the state backs the G.O. debt with its full faith and credit, the bond interest rate is usually lower than if the SRF issued revenue bonds which would be secured by the revenues of the program (Option III - described in next section). In addition, the use of G.O. bonds can benefit the SRF through lower issuance costs, and by avoiding the need for a separate reserve fund within the SRF.

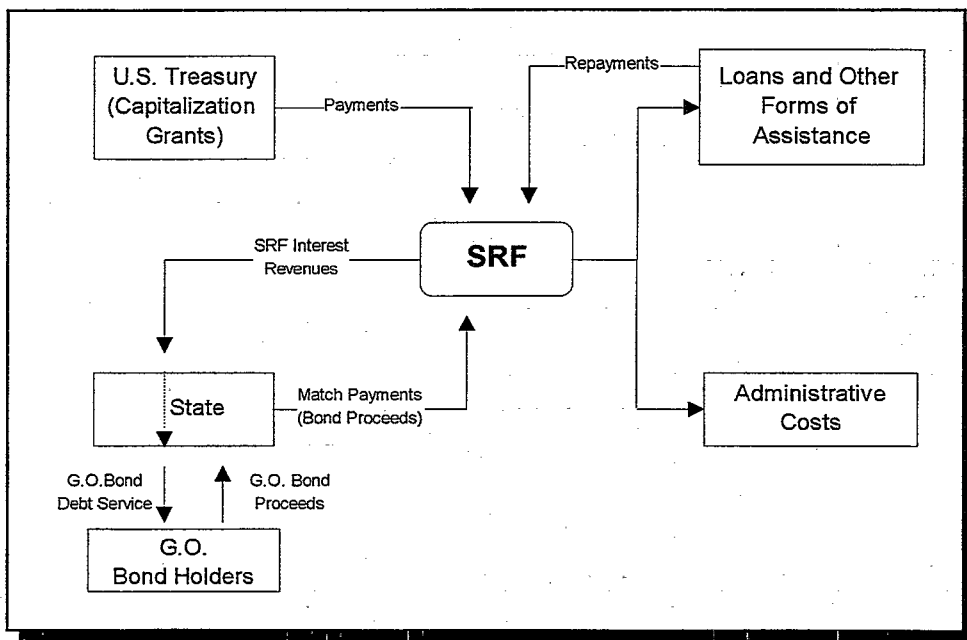


Figure 3 - G.O. Debt Repaid with SRF Revenues

In cases where SRF programs establish reserve funds for G.O. match bonds, the rate on the G.O. bonds may be even lower than the state's G.O. bond rate and the bonds are likely to sell more quickly on the market. Texas has used this approach in the past and found investors to be very receptive to a G.O. bond with an additional reserve fund in the SRF.

As with all match bond options, SRF program regulations require that only the interest portion of SRF loan repayments and interest earned on SRF accounts be used to repay the G.O. bonds. A state must demonstrate that program interest earnings are sufficient to repay the match bonds. This requirement ensures that one of the fundamental principles of the SRF program, that a state will provide matching capitalization that will be available for continued SRF uses, will be met.

Option II-C: G.O. Bond Placed in SRF

Connecticut and Michigan have used a different version of the G.O. debt option. The state deposits a G.O. bond in the SRF and pays principal and interest into the SRF to retire the bond. The best way to understand this option is to compare it with G.O. bond options just described. In the other G.O. bond options, states sell bonds to investors, deposit the net bond proceeds in the SRF as match funds, and then pay off the annual bond payments with general fund revenues.

In Connecticut, the bonds are placed in the SRF and the state pays annual debt service directly to the SRF program (Figure 4). The difference between this option and other G.O. bond options (e.g., see Option II-A) is that the state makes semiannual debt service payments to the SRF program instead of outside investors.

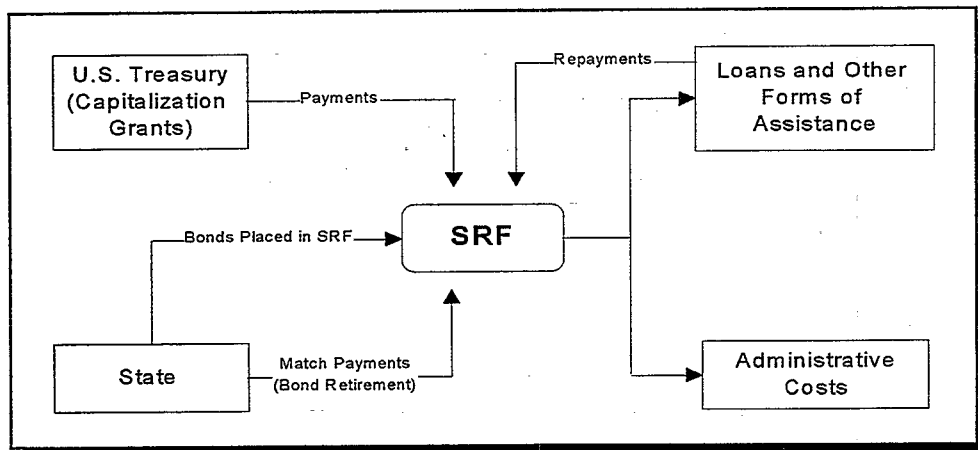


Figure 4 - G.O. Bonds Placed in SRF

Under this approach, the principal portion of the bond payment made to the SRF serves as a match deposit. This approach eliminates the G.O. bond issuance costs that the state would normally incur. The approach also benefits the SRF program if the bond payment from the state general fund to the SRF includes interest payments in addition to the principal payment.

To ensure that this approach is comparable to the other bond approaches several requirements must be met. First, the bonds must be an irrevocable commitment by the state to make match deposits into the fund. Second, the debt service schedule of the bonds must be typical of revenue bonds. Third, if loan default occurs in a leveraged program, the SRF must draw from both federal funds and state match funds to cover the default. This will ensure that cash draws of federal and state funds remain proportional to overall investment in the SRF. Fourth, for each year that this approach is in use a state must submit documentation of bond cash flows as evidence of compliance with the SRF regulations. Fifth, the bond must receive a bond rating in the same fashion as other G.O. debt. It is important to note that the bond payment schedule must be sufficient to cover the state share of costs of construction as it occurs. This option provides several benefits to states including eliminating interest costs associated with issuing debt. A potential drawback is that this option has not been widely used in states and, as a result, it may take additional up-front work to explain and gain approval for its use.

Option III: State Match Revenue Bonds

In cases where states cannot provide match funding from available resources outside the SRF, revenue bonds may be issued directly by the SRF and the

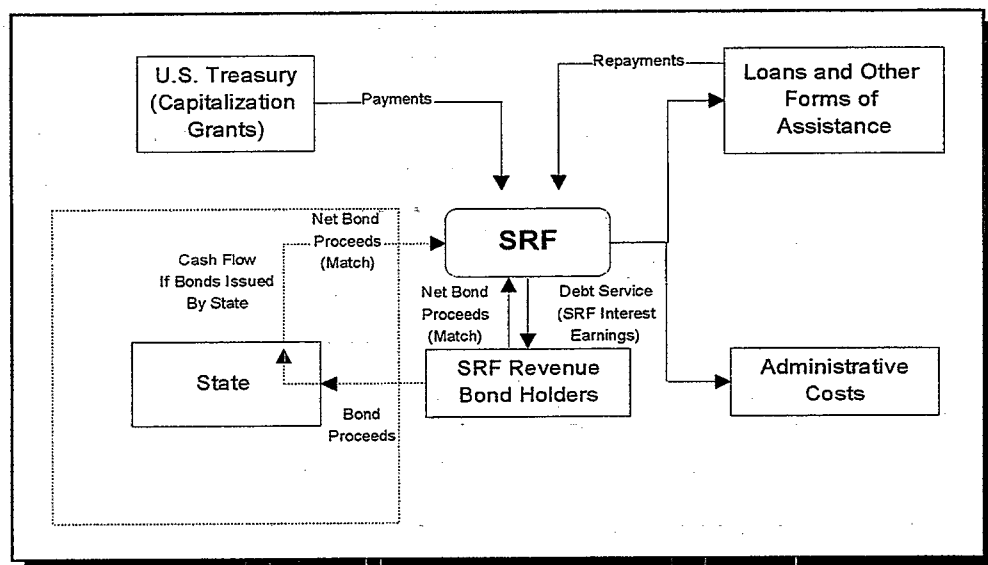


Figure 5 - SRF Match Revenue Bonds

net proceeds from the bonds can be used for match. EPA regulations allow SRF programs to issue bonds to acquire match and use SRF interest earnings to retire the bonds (Figure 5). Interest funds to retire bonds come from the interest portion of SRF loan repayments and

interest earned on SRF accounts. SRF programs cannot use the principal portion of loan repayments, capitalization dollars, or other state match dollars to retire match bonds. The net bond proceeds that are committed as state match must be retained within the SRF and used for future SRF eligible funding activities (e.g., loans, guarantees, etc.). Thirteen states are now using SRF revenue bonds for match (AL, NE, CO, MT, ND, SD, AZ, IN, OH, IA, KS, MI, LA).

As Figure 5 illustrates, states that use revenue bonds as the source of match take two different approaches to issuing bonds. Some states issue the bonds outside the SRF through existing state bonding mechanisms and deposit the net proceeds from the sale into the SRF (broken line box in Figure 5). Other states give the SRF direct bonding authority and issue the bonds directly from the SRF.

Using revenue bonds as the source of state match allows states to capitalize their SRF without tapping into other state resources. However, the disadvantage of the option is that states lose some flexibility in setting the interest rate on SRF loans. This is the case because the SRF loan interest rate will need to be high enough to provide funds to repay the SRF revenue bonds. In addition, programs that tap into the SRF to repay bonds will reduce the purchasing power of their SRF program. Fund interest earnings from loans and investments that could have been used for new loans would be reduced by the amount needed to repay SRF revenue bonds.

Option IV: Pledged Repayments From State Loan Programs

SRF programs may use loans from preexisting state programs as a source of state match. A preexisting loan portfolio may generate both cash and credit (of future principal repayments) toward meeting the state match requirement. Georgia, Utah and New Jersey are using this approach. Different requirements exist for loans before and after March 7, 1985, (the date that The Water Quality Act of 1987, which established the SRF program, was introduced in the U.S. Senate).

For loans made from preexisting loan programs after March 7, 1985, the amount of outstanding loan principal can be credited in full toward the state match if the projects met Clean Water Act requirements in effect at the time of the loans. As the state receives repayments of

principal which it claimed for credit, those funds must be transferred to the SRF. The interest portion of the repayments for loans made after March 7, 1985 must be deposited in the SRF and may be used for matching requirements only as they are received.

For loans prior to March 7, 1985, only repayment amounts (both principal and interest), as they are received, can be counted toward state match. Credit for match is given as the repayments are received and deposited into the SRF.

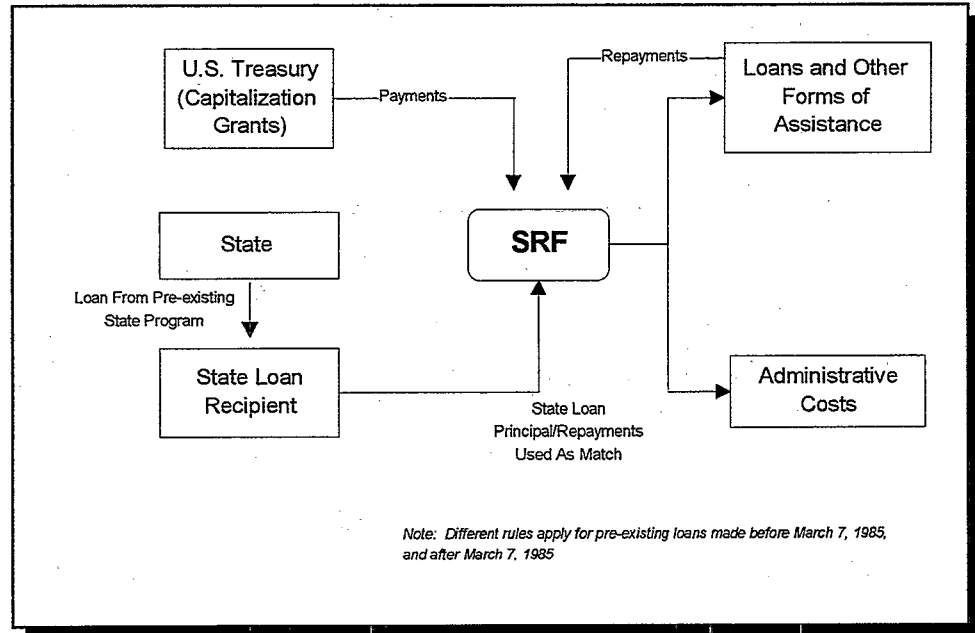


Figure 6 - Pledged Repayments from State Loan Program

Option V: Local Contribution

States that are having difficulty identifying a source of state match could use an approach that requires loan recipients to provide an upfront local contribution equal to 20% of the total loan. To date, Colorado is the only state that has used this approach. Colorado charged a local contribution amount to loan recipients and used the contribution to meet the state's SRF matching requirement. These local contributions are cash payments made by loan applicants to secure the loan. Figure 7 illustrates the cash flow process for this option. States need to provide an assurance that the local contribution funds are committed to the SRF at the time of capitalization grant award. Funds from the local contribution would need to flow into the SRF on a schedule that complies with SRF cash draw regulations. At the latest, the local contribution

would need to be deposited into the SRF to meet match requirements as the SRF draws cash from through the federal cash draw process.

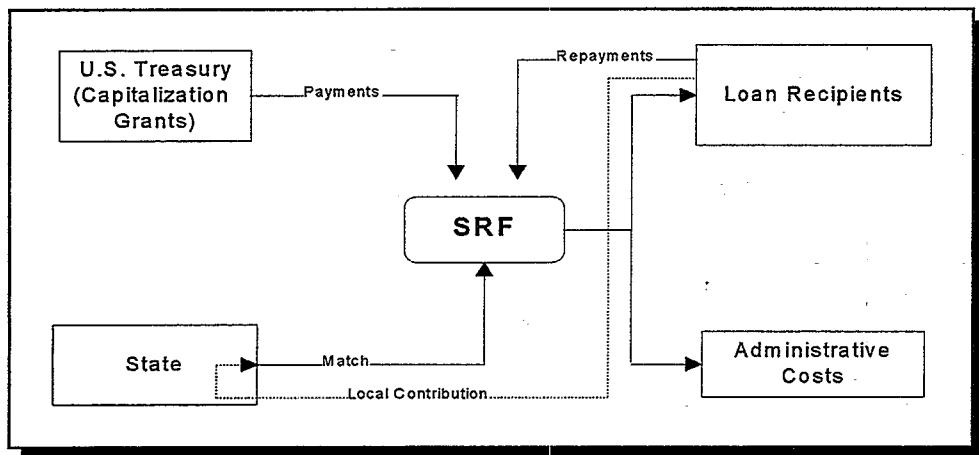


Figure 7 - Local Contribution

Although this option requires loan recipients to provide funds "up front," the scenario could still result in savings to the recipient if the SRF loan rate is significantly lower than the market interest rate available to the loan recipient. This is the case even if the community borrows the local contribution funds. However, this approach could result in municipal complaints that the state is not obtaining the match funds from "state funds" and the SRF program could become less attractive to local borrowers.

III. EVALUATION OF MATCH ALTERNATIVES

This section of the report presents an evaluation of match alternatives. Each alternative is evaluated based on the following criteria:

1. Cost to SRF - Does the option use SRF revenues that would otherwise be available for eligible SRF assistance?
2. Cost to Communities - Does the option result in additional costs or higher interest rates for communities?
3. Administrative Complexity - How complex is the match source to administer? What skills are required?
4. Predictability/Reliability - Is there certainty that match will be available when federal grant payments are made?
5. Frequency of Use - Has the option been popular or unpopular between top state decision makers?

Separate tables for each evaluation criterion display each match option's relative effect on the SRF.

It should be noted that the ratings given for each option do not impact EPA's willingness to accept or reject any one of these options. The purpose of the ratings is to give states a general idea of the evaluation criteria to use when considering different state match options.

1. Cost to SRF

Match option costs include interest costs for borrowing match funds, planning and implementing the match option, and continuing administration costs that occur for the option. The review of match options assumes that the goal is to meet the CWA statutory requirements at the least cost to the SRF. Table 1 displays the relative cost to the SRF for each option.

Issuing SRF revenue bonds is the highest cost option. It is higher in cost because SRF interest earnings are used to repay debt. Issuing bonds from the SRF often requires skills and legal authority that SRF programs must acquire. G.O. debt that is repaid with SRF revenues generally will have lower interest costs because G.O. bonds are viewed as less risky, and administrative costs will be lower because another state program manages the bond issuance process.

The final cost of each of the options will vary depending on the interest rates available for different options. An analysis that establishes the present value of the annual cash-flows for each match option will provide state specific information to support a state's selection process.

Table 1: Evaluation Criterion - Cost to SRF					
<i>Match Option</i>	<i>High</i>	<i>Moderately High</i>	<i>Average</i>	<i>Moderately Low</i>	<i>Low</i>
General Appropriations					X
G.O. Debt Proceeds Deposited in SRF				X	
G.O. Debt Paid with SRF Revenues		X			
G.O. Bond Placed in SRF				X	
SRF Revenue Bonds	X				
Pledged Repayments from State Loan Programs				X	
Local Contribution				X	

2. Cost to Communities

Match options have different cost impacts on communities. Table 2 displays the relative cost to communities for each option. The options that require a higher SRF loan interest rate to generate revenues to repay debt used for match have a higher cost impact from a community perspective.

Issuing SRF revenue bonds and using loan contributions are the higher cost options relative to the others presented. Using revenue bonds for match requires that the SRF loan rates be high enough to generate interest earnings to repay the debt. Loan contributions could require a significant up-front payment by communities that would not occur with other options. G.O. Debt that is repaid from the SRF would result in a moderately high impact to communities because, while SRF loan interest rates would need to be sufficient to generate funds for bond payments, G.O. debt is normally less costly than SRF revenue bonds.

Table 2: Evaluation Criterion - Cost to Communities					
<i>Match Option</i>	<i>High</i>	<i>Moderately High</i>	<i>Average</i>	<i>Moderately Low</i>	<i>Low</i>
General Appropriations					X
G.O. Debt Proceeds Deposited in SRF					X
G.O. Debt Paid with SRF Revenues		X			
G.O. Bond Placed in SRF					X
SRF Revenue Bonds	X				
Pledged Repayments from State Loan Programs					X
Local Contribution	X				

3. Administrative Complexity

The administrative complexity of a match option depends on level of specialized skills required to implement and manage the match source and the amount of coordination required between state agencies, SRF loan applicants, and specialized private sector firms (e.g., bond counsels). Table 3 summarizes the administrative complexity of the match options.

Generally, the administrative complexity of a match option will be greatest when bonds are used. However, using G.O. bonds is generally less complex than using SRF revenue bonds. Normally a state's finance department is responsible for the technical aspects of the G.O. bond issuance and repayment process. SRF managers are left with the responsibility to process loans and transfer any payments from interest earnings to a state account used to retire G.O. bonds.

Table 3: Evaluation Criterion - Administrative Complexity					
<i>Match Option</i>	<i>High</i>	<i>Moderately High</i>	<i>Average</i>	<i>Moderately Low</i>	<i>Low</i>
General Appropriations					X
G.O. Debt Proceeds Deposited in SRF		X			
G.O. Debt paid with SRF Revenues		X			
G.O. Bond Placed in SRF			X		
SRF Revenue Bonds	X				
Pledged Repayments from State Loan Programs			X		
Local Contribution			X		

Using revenue bonds for match results in a higher level of complexity because SRF managers are required to interact/coordinate with several different specialists during the process. These include:

- Underwriters/Investment Bankers
- Bond Counsels
- Financial Advisors
- Bond Rating Agencies

Managing program operations may become more complex when using bonds for match. Tax law restrictions on expenditure timing, arbitrage earnings/reporting, and use of funds require specialized management skills (internal and/or external). Requirements of the debt structure such as debt service coverage levels, and use of reserve funds also increase the management complexity.

The last three options listed in Table 3 are average in complexity because, while they require additional coordination and management, they do not present the same challenges as issuing bonds.

4. Predictability/Reliability

The predictability/reliability of a match alternative reflects the level of confidence there is that the funds will be available to the SRF to meet match timing requirements. Table 4 summarizes the predictability/reliability of match options. With most options, SRF managers have control over the timing of funds. For example, bond issuance can be timed to correspond with the SRF's grant payment schedule to ensure that funds are deposited on or before the scheduled grant payment date.

SRF program managers have less control over the flow of funds in the last two options listed in Table 4. When using pledged repayments from state loan programs, the SRF may be dependent on loan recipients from other programs making on-time payments. When using local contribution as the source of state match, the availability of match funds will be dependent on the loan closing process.

Table 4: Evaluation Criterion - Predictability/Reliability					
<i>Match Option</i>	<i>High</i>	<i>Moderately High</i>	<i>Average</i>	<i>Moderately Low</i>	<i>Low</i>
General Appropriations			X		
G.O. Debt Proceeds Deposited in SRF			X		
G.O. Debt Paid with SRF Revenues	X				
G.O. Bond Placed in SRF	X				
SRF Revenue Bonds	X				
Pledged Repayments from State Loan Programs		X			
Local Contribution		X			

5: Frequency of Use

This criterion gauges how the match options have been accepted by state and EPA decision-makers. The ranking in Table 5 partially indicates the level of use of the individual options. Frequently used options can generally be viewed as acceptable to decision-makers.

Table 5: Evaluation Criterion - Frequency of Use			
<i>Match Option</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>
General Appropriations	X		
G.O. Debt Proceeds Deposited in SRF		X	
G.O. Debt Paid with SRF Revenues			X
G.O. Bond Placed in SRF			X
SRF Revenue Bonds	X		
Pledged Repayments from State Loan Programs			X
Local Contribution			X

Conclusion

The SRF program provides critical funding to address the country's continuing water pollution problems. States that capitalize their SRFs through appropriations will be rewarded over time with higher SRF funding levels. However, should a state be unable to provide funds directly to the SRF, other state match options are available for use.

The "best" match option for each state will depend on the unique conditions confronting each state. When reviewing match options states should consider criteria including cost to the SRF/communities, administrative complexity, reliability, and overall historic acceptability.