



Financing Strong State Water Programs In New Ways

**Proceedings Of A
National Workshop
March 20 - 21, 1989
Denver, Colorado**

Co-Sponsored by:

Association of State and Interstate
Water Pollution Control Administrators

Association of State
Drinking Water Administrators

Council of Infrastructure
Financing Authorities

Council of State Governments

Government Finance
Research Center

National Conference of
State Legislatures

Proceedings Prepared by
the National Academy
of Public Administration

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PREFACE

The National Academy of Public Administration agreed to prepare this summary of the proceedings of the workshop on "Financing Strong State Water Programs in New Ways" sponsored by the Office of Water, U.S. Environmental Protection Agency. The workshop took place in Denver, Colorado on March 20 and 21, 1989.

It was co-sponsored by the :

Association of State and Interstate Water Pollution Control Administrators

Association of State Drinking Water Administrators

Council of Infrastructure Financing Authorities

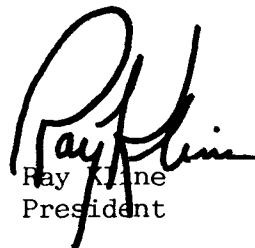
Council of State Governments

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New requirements imposed by amendments to the Safe Drinking Water Act and the Clean Water Act coupled with a prospective reduction of 50 percent in federal funds available to states to support their ongoing water quality management programs made it imperative to review financing options available to states.

The National Academy of Public Administration was pleased to assist in this important effort.



Ray Kline
President

Proceedings

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Proceedings

Glossary

ASDWA	Association of State Drinking Water Administrators
ASIWPCA	Association of State and Interstate Water Pollution Control Administrators
AWWA	American Water Works Association
CDBG	Community Development Block Grant Program
CEM	Office of Cooperative Environmental Management (U.S. EPA)
CES	Cooperative Extension Service (USDA)
DEC	Department of Environmental Conservation (Vermont and New York)
DOJ	U.S. Department of Justice
EPA	U.S. Environmental Protection Agency
FMHA	Farmers' Home Administration (USDA)
GAO	Government Accounting Office
HHS	U.S. Department of Health and Human Services
HUD	U.S. Department of Housing and Urban Development
ICC	Illinois Commerce Commission
MTAS	Municipal Technical Advisory Service (Tennessee)
NARUC	National Association of Regulatory Utility Commissions
NEHA	National Environmental Health Association
NJPDES	New Jersey Pollutant Discharge Elimination System
NOAA	National Oceanic and Atmospheric Administration
NRWA	National Rural Water Association
NSF	National Sanitation Foundation
OMB	Office of Management and Budget
PUC	Public Utility Commission
RCAP	Rural Community Assistance Corporation Program
SCS	Soil Conservation Service (USDA)
SDWA	Safe Drinking Water Act
SRF	State Revolving Loan Fund
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
UST	Underground Storage Tank
WPCA	Water Pollution Control Account (Idaho)

The workshop was a product of the U.S. Environmental Protection Agency's (U.S. EPA's) Office of Water State Funding Study. Rebecca Hanmer, the Acting Assistant Administrator for Water, initiated the study in May 1988 as a result of her concern that States were facing growing financial problems in carrying out their water programs. States are crucial implementing arms of Federal policy as well as their own State agendas, and new resources must be found to support State-based water management programs and new program responsibilities.

The study is quantifying the need for increased funding to support State water programs, identifying possible solutions such as alternative financing mechanisms and increased general revenues, and investigating ways to reduce the amount of resources needed in implementing the laws and regulations.

States face an increasing financial shortfall in funding their water management programs. The shortfall is caused by two events - new legislative requirements and diminishing Federal funding for established Clean Water Act programs.

New requirements of the amendments to the Safe Drinking Water Act (SDWA) in 1986 and the Clean Water Act in 1987 will demand new State resources that by 1994 could double the current State operating budgets.

In drinking water programs, States must promulgate 83 new and revised drinking water regulations over the next five years and 25 additional regulations every three years thereafter. States must also increase monitoring activities as well as establish more stringent enforcement programs, and regulate some 20,000 drinking water systems previously unregulated. In surface water programs, States must increase toxic and nonpoint source control, and add sludge management and stormwater control.

At the same time, 50 percent of the Federal funds historically available to States to support their ongoing water quality management programs will be greatly reduced by the end of fiscal year 1990 and terminated altogether by the end of fiscal year 1994. These funds are available through set-asides to the Federal construction grants program, which will end and be replaced by State revolving loan funds.

Although necessary, increasing Federal and State funding of water management programs from general revenues is proving to be difficult, given the Federal deficit, tax reform changes, and the anti-tax climate in the nation. As a nation, we need to decide our policy on Federal support of State water programs, increasing State support, and adopting supplemental financing mechanisms that will add new sources of revenue to those that traditionally fund water programs.

This workshop sought to:

- (1) make known the severe problem facing States in managing their water programs;
- (2) share the “how to” information from States that are already successfully implementing alternative financing mechanisms;
- (3) help forge new partnerships among the water administrators, legislators, and the financial community to stimulate new financing opportunities; and
- (4) obtain recommendations from workshop participants on actions States and U.S. EPA can take to support implementation of alternative financing mechanisms.

The workshop was sponsored by U.S. EPA’s Office of Water, with cosponsorship by six other concerned organizations:

- the Association of State and Interstate Water Pollution Control Administrators
- the Association of State Drinking Water Administrators
- the Council of Infrastructure Financing Authorities
- the Council of State Governments
- the Government Finance Research Center
- the National Conference of State Legislatures

The National Academy of Public Administration prepared these proceedings of the two-day meeting, based on an edited transcript of the workshop and review of the proceedings by speakers and panelists from the sessions.

Participants at the workshop included representatives from over 30 States, State and Federal legislators and staff, the financial industry, and private interest groups. Appendix A contains a complete listing.

Summary

Recommendations for State and U.S. EPA Actions to Support Supplemental Funding Programs

General Considerations

- Water in the United States is cheap and underpriced; until we realize the true value of water, our economic problems will only become more severe.
- There is no single revenue solution to the State funding gap, rather a number of partial solutions need to be undertaken.
- We need to have better accountability to show what water programs are producing and we should not be afraid to say what we cannot produce because of lack of resources.
- Supplemental financing mechanisms should be pursued, but improved efficiencies, better financial management, and cost saving organizational or programmatic changes should receive equal attention.
- Leveraging techniques should constantly be sought in the expenditure of funds.
- Utilities should establish reasonable reserve rates within the price of water to reflect depreciation of their existing facilities.
- We need to try to protect our existing funding sources, recognizing that others may want to use our methods, especially our surpluses, if any.

U.S. EPA Actions Recommended

- Develop a State/U.S. EPA consensus on how to move forward in partnership.
- Promote better communications between States and U.S. EPA.
- Re-examine the issue of Federal funding criteria, and the need for a Federal policy to determine how much support for State programs should be provided at the Federal level.
- Give explicit support to the Federal obligation to help pay an equitable share of program operating costs.
- Take the lead in defining what is affordable for environmental programs.

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- Set up a permanent water program financing task force.
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Fee Systems

- States are using fees to support their core program. Fees can not, however, fill the entire funding void; there is an upper limit.
 - We need a balanced approach to funding with a major role for fees; do not fragmentize funding sources.
 - We need to be flexible, recognizing we will have a period of innovation and experimentation.
 - There are administrative complexities which must be recognized.
 - We could benefit from more technical transfer among the States.
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U.S. EPA Action Recommended

- Develop a clearinghouse for collecting, analyzing, and sharing information on traditional and innovative ways of financing State water programs.
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Fines and Penalties

- The primary purpose of fines should continue to be to ensure compliance, with the hope that fines eventually will not be necessary.
 - In the meantime, fines should be viewed as an opportunity to have the polluter pay back into the system.
 - This requires preparation of a system that can receive and use the fine revenues. The impetus and commitment to make the penalty work will affect the development of such a system.
-

U.S. EPA Action Recommended

- Play a strong clearinghouse role in sharing information on sizes of penalties for various violations, and uses of proceeds from penalties.
-

Funding Allocations

- We need to look at the allocation of Federal monies to States and perhaps tie these more strongly into needs and performance.
-

Funds

- If possible, revenues from fees and taxes should be combined into a single dedicated fund, not mixed with general revenues.
-

Management

- State and Federal governments need to be leaner and meaner, and think smarter.

- We need to survey State water program needs on a regular basis.
 - We should encourage all possible efficiencies in program administration.
 - In the drinking water program, we need to encourage regionalization, consolidation, and circuit riders.
 - There should be greater use of pollution prevention, water conservation and water demand management.
 - We should encourage greater use of pretreatment to reduce the amount of waste generated.
 - We should develop industrial incentives for cost reduction.
 - We should take some risks to "think smart" even if it is not business as usual. We could even be radical; for example, experiment with procurement.
-

***U.S. EPA Actions
Recommended***

- Review the various Federal laws and regulations to give States more flexibility within the needed accountability.
 - Involve States and other interested parties in defining requirements and promulgating regulations.
 - Remove legal impediments to public-private partnerships at the Federal level, and promote such partnerships at the State level.
 - Work to keep reporting requirements and programs simple to hold down costs so that U.S. EPA money can support public health protection and not be used merely to report back to U.S. EPA.
-

Priorities

- Resources are short enough that we will have to compromise. Therefore, it is important to focus on water quality objectives and make decisions on what is most important to accomplish.
 - We need clearer separation of the "musts" from the "mays and mights."
-

***U.S. EPA Actions
Recommended***

- Recognize, because of their differences, the importance of flexibility to the States in setting priorities and program objectives.
- Allocate resources according to priorities.

Public Support

- We need to convince the public of the benefits of our water programs, not just the need for additional people to run the programs; funding for administrative costs will follow with increased program funding.
 - We should encourage greater individual responsibility, community participation, and education of the legislatures and the public.
 - We must better present the benefits of water programs to gain public support.
-

***U.S. EPA Action
Recommended***

- Do a better job of stimulating public and congressional awareness of the need for water programs and resources to support them.
-

State Legislatures

- Find and work with key State legislators as advocates for the programs and needed resources.
 - Remember that if fees are set too high, without collaborative work with those who will pay them, legislative constituencies may protest.
-

***EPA Actions
Recommended***

- Give strong assistance to State agencies in translating requirements and communicating the new needs to the State legislatures.
 - Recognize that departments of health are often the lead agency for water programs and are at a disadvantage competing with larger, more visible agencies.
 - Make clearer to State legislators that the Clean Water Act is going to raise administrative operating costs, since it may not be apparent that these are not infrastructure costs.
-

Taxes

- A new tax will require extensive consensus-building which must include private business and utilities.
 - In obtaining a new tax, it is important to keep the effort simple and focused.
-

***U.S. EPA Action
Recommended***

- Develop model State legislation that deals with new taxes.

Technical Assistance

- Technical assistance organizations can accomplish goals and work in places that States cannot.
 - Technical assistance can reduce overall State and community costs.
 - At least one technical assistance agency, such as the Municipal Technical Advisory Service in Tennessee or a Rural Community Assistance Corporation, should be supported with additional funding, if necessary, in each State.
 - Relationships need to be strengthened between technical assistance organizations and the States.
 - Coordination can be improved between agencies.
 - Success stories should be publicized.
-

U.S. EPA Actions Recommended

- Make more of a hands-on outreach effort to ensure coordination by getting interested parties together and helping the States identify who needs assistance.
 - Form a team to help solve technical problems rather than put new money into programs.
-

Third Parties

- States could extend their resources by making better use of public health professionals who are available.
 - States could make better use of third parties such as the National Sanitation Foundation for things such as service and laboratory certification.
-

U.S. EPA Action Recommended

- Work with other agencies, local governments and third parties as well as States.

Excerpts from **State Keynote Address**

Speaker **The Honorable Roy R. Romer**
Governor of Colorado

Ever since the Clean Water Act and the Safe Drinking Water Act were passed in the 1970s, Congress has incrementally added to the areas that State water quality programs are required to address. Controlling conventional water pollution and point sources has been successful; now we must implement programs to control toxics and nonpoint sources.

Initially these new responsibilities were supported by set-asides from the Federal construction grants program. In 1987, Congress enacted a plan to replace the construction grants program with State revolving loan funds dedicated to constructing and expanding wastewater treatment plants.

By 1995, U.S. EPA estimates that half of the federal funding formerly available to States for water quality will be gone. And what is left will not fully address the needs for which it is provided. This conference will be focusing on supplemental financing which we can use to fill the funding gap that will exist.

In Colorado, more than 50 percent of the funds supporting the Health Department's water quality programs come from the Federal government. Our commonly discussed options are new Federal or State appropriations, increased permit fees, tap fees, and pollution taxes or effluent fees.

New Federal and State appropriations are likely to be few and selective, given the Federal deficit and the prevailing political attitude concerning taxes in Colorado and many other States. While we can and should expect Congress to continue to refine and initiate water quality legislation, the States must continue to insist that the Federal government share the costs of the legislation.

The nation's governors have asked Congress not to create new State obligations without sufficient funding assistance to share the cost of those obligations. In no area is that request more important than in the area of water quality.

In Colorado, talk of new appropriations from the State's general fund gets about as good a reception as talk of wilderness water rights gets from western water developers.

Permit fees now provide about 22 percent of the revenues for the State program which is only slightly less than the 26 percent provided from the State's general fund. But permit fees cannot be raised indefinitely, and we are thoughtful about how much more burden can be put upon the dischargers.

Tap fees are appealing to some because they spread the costs across the broadest possible base, the consumers, who are also the beneficiaries of water quality programs. However, I have reservations. It could be argued that pollution is morally wrong, and that the pollutants rather than the consumers should pay.

As an economist I must raise the flag of economic efficiency and talk about pollution taxes, or effluent fees. These can force polluters to recognize the cost of pollution as part of the cost of production. If tax rates are properly set, they can insure that those who encourage pollution through buying the products which result pay for the consequences of that pollution. However, as a politician I recognize that the resulting burden falls largely upon large municipalities and large industries, who will take a long, hard look at pollution taxes and the alternatives.

What this all means is that none of these solutions are without advantages and disadvantages. Together, political leaders and water pollution control experts will have to make some tough choices about these traditional options for filling the water quality financing gap. Any choice we make will require that we invest in a healthy amount of public education about the importance of environmental quality in general and water quality in particular.

There is another way of addressing the funding gap. Let me challenge you to look beyond the revenue side and think more creatively about the ways we manage our water quality programs and the costs of those programs. These ways ought to be explored thoroughly before State water quality programs seek supplemental revenues.

1. Consider new ways of organizing and managing to gain greater efficiency. We have an obligation as public servants to take every dollar spent on water quality and stretch it as far as possible.
 - Recognize that managing financial resources requires close collaboration with other agencies and with the legislature.
 - Look closely at program organization and ask tough questions. Are there other ways of achieving water quality goals than the status quo? Rethink how we can do our jobs more efficiently.
 - Since personnel for enforcement are limited, one idea we will

be exploring is an outreach program for dischargers to train and certify operators to do their own comprehensive inspections.

2. Actively promote water conservation which would increase the supply and leave less water to be treated, thus reducing treatment costs. Some possibilities would be requiring low-flow fixtures for consumers; and for agriculture, a big user in Colorado, setting up financial incentives to conserve, perhaps by selling the water savings to other users.
3. Encourage pretreatment programs. These are not only important for compliance, but can greatly reduce burdens on wastewater treatment plants and encourage waste reduction in the private sector. Industrial discharges to plants create some serious problems including health hazards to the public and workers; interference with proper operation of treatment plants; increased expense of toxic pollutant disposal; damage to pipes and equipment; and the potential for explosion caused by highly volatile wastes. Reducing these problems through pretreatment saves municipal money. Shifting the costs to dischargers may also provide additional incentives to implement cost-saving waste reduction techniques.
4. Promote individual responsibility and community participation. Increasing education on pollution prevention and cleanup practices can make us all part of the solution and could include such activities as proper disposal of used engine oil, alternatives to sanding and salting techniques for de-icing, and proper land use decisions.

Let me wrap this up by summarizing what I think all this means.

First, there is not likely to be a single solution to the water quality funding gap. There are only a number of partial solutions which, when combined in creative ways, may allow States to preserve a strong water quality program.

Second, we cannot look only at supplemental financing mechanisms to bridge the funding gap. Improved efficiency, better financial management, and cost-saving organizational or programmatic changes should receive at least as much attention from water quality managers.

Third, States may find that the best they can do is to preserve a strong core program of planning, standard setting, permitting, monitoring, and enforcement. Increased reliance on private sector and locally generated solutions will become increasingly important in the years ahead.

Fourth, we must all remember that the primary goal of our efforts is to protect and enhance the quality of the water supplies upon which all life depends. There are at least as many ways to achieve that goal as there are creative minds devoted to the task. At all levels of government, and in the private sector, we need to appreciate that and preserve the flexibility to experiment with new approaches to meet the great challenges which lie ahead.

Excerpts from **U.S. EPA Keynote Address**

Speaker **Rebecca W. Hanmer**
Acting Assistant Administrator for Water
U. S. Environmental Protection Agency

State water programs are heading very rapidly into a brick wall—greatly expanded legislative mandates to be met despite a funding shortfall which will hamper meeting even our current mandates. As we contemplate how to deal with this crisis, we need to ask ourselves a whole series of brand new questions.

We need to think in a new and broader context than simply program funding levels. We need to be asking other questions, such as: How do we manage and run the water pollution control and drinking water programs more efficiently? How do we find ways to strengthen the involvement of local citizens and local governments in what we are doing? How do we engage citizens in an intelligent discussion on how those things should be paid for? How do we engage the private sector more effectively in terms of monitoring, permit conditions, and compliance?

The State funding gap is large. In spite of all our great ideas on doing business differently, it will still be necessary, and, in fact, crucial, to find additional monies to fund strong State water programs adequately.

Why do we care so much about administration costs of State water programs? We are constantly reminded that while the States are spending millions of dollars, this pales in comparison to the billions of dollars invested in infrastructure at the local and private levels. However, without strong State programs, the billions of dollars we're spending on infrastructure at the public and private levels may not be spent in a way that ensures healthy, clean water Statewide and, ultimately, nationwide. In fact, some of those billions of dollars might not be spent at all without the State's regulatory role.

But with all the money that has been invested, we have made very few of the inherent problems go away. In most areas, we have put huge systems of concrete, pumps, and electrical systems between us and a potential pollution deluge that is always there. Those systems have to be maintained all the time.

Strong State programs are crucial. Not only do States perform a regulatory role, but they set water quality standards and goals, and they

ensure that priority problems are addressed first, that downstream jurisdictions don't suffer from decisions made by upstream jurisdictions, that small communities which can't afford to manage their infrastructure are assisted, and that we meet and maintain the bottom line of clean water and healthy drinking water.

We believe that the States and their partner local governments are in the best position in this country to deal with the site-specific water problems as efficiently and as cheaply as possible. They have the site-specific knowledge, connections, and familiarity to get results most effectively and efficiently.

In addition, States must meet multiple environmental requirements in other areas besides water. They are therefore in a good position to evaluate all the individual environmental problems and requirements affecting their given areas, and to develop coordinated, prioritized, effective solutions that take into account the resources available at the State level.

Also, much of the remaining water quality problems come from a vast universe of small, diverse, and complex pollution sources. These nonpoint sources are most effectively dealt with by State and local authorities because the solutions involve thousands of individual local decisions and local behavioral changes. The same principles apply in the wellhead protection program in terms of protecting our ground water. We are not dealing with an easily regulated small universe of very large sources. Rather, we are dealing with millions of small problems that can only be assisted by people who are near those problems, their causes, and their solutions.

The comprehensive new amendments to the Safe Drinking Water Act in 1986 and the Clean Water Act in 1987 present us with major new challenges, and give the States a tremendous new agenda to implement. These amendments also clearly recognize the primacy of the States for responsibility for most of the remaining work to be done in water pollution control. If the States cannot give these new programs a solid start, it means that either U.S. EPA or the States will have to spend considerably more money down the line for enforcement and remediation, or suffer a return to the water quality conditions of the 1940s and '50s, which we thought we had grown well beyond. And it will be more expensive and difficult this time around because of the tremendous increase in our population and our economic activity since we began this trek 20 or 30 years ago.

For all these reasons, I regard supporting and building State capacities as one of the main goals of the Office of Water and, indeed, of the U.S. Environmental Protection Agency. We sent this message to Lee Thomas, who authorized us to begin this study, and to Bill Reilly, our new Administrator, and we are going to be saying it even more forcefully in our 1991 planning sessions.

Financing is most of the name of the game, and it is also something that can never be taken for granted. These issues need to be shared constantly with the public. So, despite the fact that not all these ideas are new, they are new to a whole generation of leaders and people who will be expected to pay the cost. That is why we initiated and are publicizing our State Funding Study in every forum we can—in the news media, in mailings, in work with interest groups, and in briefings to congressional staff.

We are serious. This is an urgent issue. We do not have much time, but we do have a lot of ideas. Now is the time to take those ideas and put them into an effective form that we can use to communicate at the national level.

We have gathered information on alternative financing solutions and presented this information in appropriate forums. Of course, many States are well ahead of us at the Federal level in designing and implementing innovative solutions. We are trying to help the States, pursuing common ends with not only them and with interest groups, but with other U.S. EPA program offices, such as the Office of Air and Radiation, which faces very similar problems, and with the financial community.

We have a task force of Federal and State members who have been providing us with advice on how best to support the State efforts, and they will be meeting again after this workshop. We hope this workshop will help publicize the State funding problem. We would like to provide a forum for States with successful alternative financing programs to tell others how they did it. We would like to stimulate new partnerships between the various parties that need to be involved in this issue. And we would like to obtain recommendations from you, the participants, for actions the Office of Water could take to help the States solve the funding problem.

The final element in the next couple of months will be to examine what the Federal role needs to be in supporting State environmental programs. There has been Federal funding for State water pollution control programs at least since the 1956 Federal Water Pollution Control Act. At the time those Federal funding mechanisms were set up, there was a recognition on the part of the Congress that people were entitled to a certain minimum level of water quality and safe drinking water regardless of whether they lived in a poor or rich State. As a result, Congress set up an income redistribution mechanism by providing State grants from the Federal tax base.

In addition, States carry out national mandated water pollution control or safe drinking water activities that go beyond what their own citizens would ask for, demand, and be willing to finance. Supporting

this State role is an integral part of achieving the national goal for clean water. And the Federal taxpayer through the Federal tax system should, in fact, pay to support this goal.

The final report from the State funding study effort will contain an implementation plan to help address the funding crisis. We have called our initial effort a funding "study," but we have always intended it to result in an action plan to support State programs.

I would like to mention some of the ideas we have received already about follow-up actions and the federal role. Some have suggested that U.S. EPA might act as a clearinghouse for information on innovative State financing mechanisms over time, to carry on the work we have been doing into future years, and that we might maintain a network of financial experts that the State and local governments could go to for assistance. We need to continue our public awareness campaign. We might partially fund personnel exchanges between State and U.S. EPA staff in the area of creative financing. We might work to remove unnecessary legal impediments to beneficial public and private partnerships and encourage States to do the same. We might consider increasing the private sector role in some areas of our regulatory activity by providing a certification for self-monitoring of certain activities. We might provide more technical assistance on financial mechanisms and other technical subjects. And we also should periodically examine our underlying regulations to see if we can develop less burdensome ways to reach our water quality goals in working with State and local governments. We are very eager to hear your recommendations at this workshop.

In closing, I would like to note that we at U.S. EPA are well aware that we are not leading the parade in finding solutions to these financial problems. All we can do is help foster the parade that is already on its way. State water programs have been fashioning creative funding programs for some time.

I'm very much looking forward to hearing from you the actions you want us to take and the leadership and support you want from us. Every time Congress has made major amendments to our clean water and drinking water laws, U.S. EPA, the States, and local governments have entered a new phase of our partnership in program management, in funding, and in ways to work together. Now, more than ever, we need a coalition. There is no way that we alone, at any level of government, are going to be able to ensure our citizens of clean drinking water, clean surface water, and diverse and healthy ecological systems. Clean water is necessary for all of us and it costs money. We are seeking new partnerships. We have new ideas. And we, at the Federal and State levels, are actively looking for ways to make our bureaucracy operate more efficiently and effectively. We are open to new ways of doing business and we are all in this together.

The Challenge of Financing Environmental Protection

Speaker

Charles L. Grizzle

*Assistant Administrator for Administration and Resources Management
U. S. Environmental Protection Agency*

The current environmental challenge is the result of two concurrent trends.

Needs and expectations for environmental protection are growing. Legislation reauthorized or proposed by Congress has placed major resource requirements on States and communities, much of it to meet new water quality requirements such as toxic wastes, non-point pollution, sludge, degradation of wetlands, estuaries, coastal waters, and ground water.

Federal budget constraints, changes in tax laws, and increasing demands in all service areas limit traditional funding sources. The resulting shortfall jeopardizes past, present, and future environmental improvements.

We now estimate that the funding gap just to maintain existing environmental standards will reach \$20 billion annually by the year 2000. This does not include new regulations or new problems such as ocean pollution, stratospheric ozone depletion, and the inability of high-density urban areas to meet U.S. EPA air quality standards for ozone. This shortfall affects all levels of government and, due to the Federal deficit, we can no longer rely on the Federal government to meet as great a share of environmental protection costs. For example, the amount Congress appropriated to U.S. EPA to implement the Clean Water Act falls significantly below what was authorized.

You have heard about State problems. At the local level, to maintain today's level of service, environmental expenditures are expected to nearly double by the turn of the century. Communities will spend over \$48 billion annually, about 65 percent of the national cost, while Federal support will drop from 12 percent to less than six percent by the year 2000, mostly due to phasing out of the Construction Grants Program as mandated by Congress.

The problems at each level of government are interrelated. The inability of the Federal government to provide the necessary resources places burdens on the States, and the difficulties that local

governments have in financing their infrastructure needs also place additional requirements on State administrative structures.

As our environmental problems evolve and mature, it is clear that State and local governments are being called upon to take on more implementation responsibilities while U.S. EPA moves to a support role. Historically, shifts in Federal/State relationships are not so unusual. Roles have changed before in some of the more traditional government services such as housing, health care, and highways. But this is the first time environmental programs have been on the table. And despite the wisdom gained from experience, the process has not become any easier.

The message that the State must assume more responsibility is sometimes interpreted to mean that the feds are imposing significant new requirements without providing the means to implement them. I can well understand this perception. We at the Federal level must work with the states and municipalities to ensure that a broad range of alternative and effective financing strategies are available.

The growing costs of environmental protection require a re-examination of how the nation finances and pays for such investments. The gap between current and future needs and spending clearly calls for bold and innovative approaches at all levels of government — Federal, State, and local. We are at a critical point in the history of the environmental movement, and we need to go beyond the traditional approaches.

With all this in mind, U.S. EPA has developed several initiatives — traditional and non-traditional — to encourage whatever institutional and policy changes are required to meet the challenges of the future. These initiatives seek to promote greater cooperation and coordination between U.S. EPA and the environmental community, i.e., State and local governments, private industry, the financial community, associations, and academia. They also encourage the use of innovative techniques, procedures, and technologies to manage and meet environmental expectations.

U.S. EPA is encouraging States to adopt:

- Fees on State environmental services.
- Taxes on products that contribute to pollution.
- Fines on polluters.
- Trust and revolving funds for administrative and infrastructure needs.

At the Federal level, U.S. EPA is promoting:

- The Superfund to finance cleanup of hazardous waste sites through a tax on oil and chemical manufacturers.
- The State Revolving Fund for seed money for construction of wastewater treatment facilities. This may be extended to other areas.
- Fees on -
 - pesticides registration;
 - toxic pre-manufacture notices;
 - ocean dumping; and
 - radon certification.

In addition, U.S. EPA is seeking to enlist market place forces and ingenuity and the resources of the private sector by actively promoting public-private partnerships. These would not only attract private capital, but also help change the adversarial relationships between the regulating and regulated communities. Nineteen States have legislation which promotes these partnerships and other States are encouraged to adopt such legislation.

Other U.S. EPA initiatives include:

- A new unit within my office to serve as a national focal point for innovative financing and public-private partnerships. It is cross-media in scope, and will coordinate U.S. EPA efforts and develop national strategies to encourage Federal, State and local use of public-private partnerships and innovative financing.
- A new U.S. EPA Office of Cooperative Environmental Management (CEM) to improve environmental results by creating a cooperative climate in problem solving, shared knowledge, and technology transfer through technical assistance, training and information dissemination.
- A National Financial Advisory Board to serve the CEM's National Advisory Board on Environmental Technology Transfer. The board would provide a nationally recognized body of experts that would advise U.S. EPA, States and local governments on financial, tax and legal matters. The board will be composed of elected State/local officials, financial experts, bankers and industry officials.

- A new Pollution Prevention Office to serve as a focal point for prevention activities.
- A national outreach effort including:
 - a new small community ombudsman;
 - a State/local roundtable;
 - the State/U.S. EPA committee; and
 - conferences such as this one.

U.S. EPA is also aware that environmental legislation and its subsequent implementation have tremendous impact on the finances of federal, State, and local governments, the private sector and the general population. Accordingly, the agency will review its approaches to legislative and regulatory development to assure that the laws are fair, effective, flexible and, of course, affordable.

Panel **State Needs: New Money; New Solutions;
New Partnerships**

Introduction As U.S. EPA and the States move into a new phase of water program management, it appears that an increasing share of the funding burden will fall on the States. Several factors contribute to this. New requirements under the Clean Water Act and the SDWA place additional responsibilities on the States. At the same time, 50 percent of the Federal funds that States used to support their water quality base programs in 1988 will disappear by 1995 due to the termination of U.S. EPA's construction grants programs and the set-asides from them. The Federal deficit makes new Federal funds from other sources difficult to obtain, and the 1986 Tax Reform Act changed the attractiveness of some infrastructure financing mechanisms. To fill the financial gap, we need new money, new solutions, and new partnerships to support State efforts in protecting water resources.

New money is necessary, because State needs for water programs are expanding, while Federal funds are diminishing. States need funds from new sources, as well as increased general revenues (the traditional form of environmental program financing) to support these programs.

New solutions are critical to respond to a State's expanding and increasingly complex program because of the inflexible and somewhat uncertain future of general revenue funding due to budget deficits. Supplemental financing mechanisms not only provide new revenue sources, they can also creatively link the type of financing approach taken to the specific environmental programs it supports.

New partnerships are important because States do not operate their programs in a vacuum: U.S. EPA and municipalities play obvious supporting or direct operational roles with State water programs. The private sector can also have much to contribute, not only as a regulated interest, but as a creative partner in solving environmental problems.

Moderator **Mr. Michael Quigley**
Director
Office of Municipal Pollution Control
U. S. Environmental Protection Agency

Key Points by Panelists **Ms. Linda Eichmiller**

Deputy Director

Association of State and Interstate Water Pollution Control
Administrators (ASIWPCA)

An ASIWPCA survey of 50 State administrators (43 responded) showed:

- Present water programs are underfunded by 24 percent (\$76 million).
- Fifty percent of existing funds come from State general revenues, 21 percent from Section 106, 14 percent from Clean Water Act set-asides, and 15 percent from alternative financing and miscellaneous funds.
- The funding gap will increase from \$116 million in 1988 to \$439 million in 1992.

These estimates will increase as we learn more about how we will implement the requirements. For example, State estimates to implement pretreatment were very high, and that was not a 1987 amendment requirement, but an existing requirement whose resource demands are now becoming clear. Inflation is eroding the base such that, in real dollars, funding for water programs is not much ahead of 1972. In looking at what a Federal fair share would be, at 25 percent, which is conservative, it would more than double the 1990 Section 106 State grant program above FY 89 levels. To implement the Clean Water Act, not only will more resources be necessary, but the national program must be made more efficient and effective through streamlining requirements.

Mr. Frederick Marrocco

Chief, Division of Water Supplies

Department of Environmental Resources

Pennsylvania

Past President, Association of State Drinking Water Administrators
(ASDWA)

An ASDWA survey responded to by 34 States and one territory covering 71 percent of all community water systems showed:

- \$96 million being spent currently on State public water supply programs (two-thirds State and one-third Federal);
- \$32 million shortfall to implement current drinking water program responsibilities;

- \$131 million in new requirements annually by 1992; and
- \$200 million in initial one-time costs between 1987 and 1992.
- The rules that have the biggest resource implications for States are disinfection, volatile organics, radionuclides, surface water treatment and lead.

Because of the funding shortages which will exist, U.S. EPA is going to have to be flexible in negotiating what can not be done with the States and aggressive in going back to Congress with the results.

Fourteen States surveyed employed some form of user fees, and eight others are contemplating it. Fees included:

- Annual fees paid by public water suppliers based on population served or water production volume.
- Laboratory fees.
- Operation permit/licensing fees.
- Plan review fees.

Eight States indicated fees were totally dedicated to drinking water; four indicated less than half were dedicated; two indicated that all fees go into the State's general fund.

Greater recognition and visibility is needed for drinking water programs and cooperative work with the constituencies of the National Governors' Association and the National Conference of State Legislatures on the importance of a safe drinking water program.

U.S. EPA should be more flexible to allow States to deal with their unique needs. We should not be afraid to say what we cannot accomplish due to lack of resources. Defensiveness will not get new money.

Mr. Thomas Looby
Assistant Director for Health and Environmental Protection
Department of Health
Colorado

In Colorado, about 17 percent of the funds for the Office of Health and Environmental Protection are devoted to water quality control. Forty-two percent is financed by the State and 58 percent by the Federal government. A listing of Colorado Cash Fund Sources is contained in Appendix B.

By 1991, about \$1 million now provided by the Federal government must be made up by the State to maintain current services. The shift is too big for such a short time period. States cannot pay for all the new programs alone. Cutbacks in State services will be necessary. One of the most troubling is cutbacks in monitoring. The Federal government needs to provide more funds, at least during the transition period.

Colorado is convening a task force this summer to examine methods of alternative financing.

Colorado is already using fees extensively. Additional fees are being considered including a toilet paper tax. In the early 1980s, the State adopted a "pay as you go" policy for environmental programs, and now they are beginning to feel a backlash against fees, which are regarded as hidden taxes. We may have gone too far with the "polluter pays" principle, and need to get back to the "beneficiary pays" principle.

Sixty percent of the 60,000 community water systems (36,000) have less than 500 people in them. This suggests that consolidation could improve efficiency. We need more comprehensive solutions to reach our environmental goals.

U.S. EPA should help States set priorities among requirements and should allow flexibility in meeting water programs goals. We need to engage major municipal institutions in solving our problem, and also put greater emphasis on assistance to small systems. We need to collectively start to set priorities in water quality programs and make judgments to how to best allocate available resources.

As a society, we need to have more comprehensive financial solutions for environmental capital improvements for the next 30 to 50 years, as well as dealing with the programmatic requirements. U.S. EPA and the States need to take a stronger leadership role in identifying major financial issues and solutions, and engage financial institutions in the dialogue. We need broadened partnerships as well, with local governments and the private sector.

Mr. Charles Sutfin

Water Division Director

U. S. Environmental Protection Agency, Region V

To adequately fund State water programs, we must know what the needs are and explain them in terms that speak directly to health and environmental quality for citizens. We must also address Federal and State responsibilities, which are a partnership; neither has the resources or expertise to carry out its roles independently. U.S. EPA's

position must be one of leadership; support will never come where leadership is lacking.

Inadequate funding never stopped Congress or U.S. EPA headquarters from demanding more from Regions or States. But Regional U.S. EPA officials must recognize the resource limitations of State programs and explain to headquarters how to produce the best results.

A six-part strategy would help us solve the resource problems.

- Instituting an institutionalized consistent approach to estimating environmental and public health needs which should be reviewed every two or three years.
- Formulating a strategy to obtain the needed resources. The strategy should include:
 - maintaining the base program;
 - avoiding compartmentalized funding needs, which restrict our flexibility; and
 - showing willingness to start new programs, even though funding may be insufficient. This would help demonstrate the needs and engender local support.
- Agreeing on an appropriate Federal-State mix of support resources and the level of Federal control expected and desired.
- Allocating Federal funding for States using formulas which recognize need and State performance and are updated to be compatible with the periodic needs survey.
- Agreeing on meaningful measures of environmental results, not just "bean counting" activities.
- Being willing to be held accountable, including frank discussion of what we cannot accomplish because of insufficient resources.

Ms. Rebecca Hanmer

Acting Assistant Administrator for Water

U. S. Environmental Protection Agency

The Office of Water will continue to have as a major priority the support of strong State water programs. U.S. EPA wants to improve the effectiveness of State participation in the rule-making process. The existing rules should be re-examined every four or five years as technology and institutions change, and new ideas come to us.

We need to:

- Separate “must” requirements from “shoulds” and “mays” in policies, guidance and recommendations.
- Develop better ways to advise Congress and State legislatures on the costs of their proposed programs, not just when new laws are passed, but in periodic updates of costs.
- Continually reexamine the proper balance between general revenues and user fees.
- More effectively involve citizens as well as dischargers in such activities as ambient monitoring.
- Mobilize others such as the U.S. Department of Agriculture’s many local employees. The National Estuary Program is a model for involving all parties in water programs.
- Set up an overt system at U.S. EPA to continually ask provocative questions that could lead to new ways of doing business.
- Publicize the water quality gains and the benefits from new investments.
- Be flexible in issuing regulations. Some State regulations are more stringent than the Federal model, thereby restricting public-private partnerships.

Participants were asked what criteria the Federal government should use to fund State water programs. Suggestions ranged from 50 percent to 40 percent (the current percentage for drinking water programs) to allowing a range of options and alternatives rather than a fixed percentage.

Designing and Adopting Fee Systems to Cover the Costs of State Services

Introduction Fees — a charge for a specific activity or service — establish a direct link between the demand for services and the cost of providing them. The validity of the fee often rests on the relationship between the fee itself (who pays and how much) and the service rendered in return for the fee.

An important issue involves the amount of the service cost that the fee covers. If the full cost is not covered, then the program which is ostensibly fee-based for revenue is not self-reliant and will require subsidies from elsewhere. Yet an inordinate amount of time and energy may be required to gain support of a fee high enough to cover the full cost of the service. In either case, it is important to include all relevant program elements in estimating program costs to ensure all needs are funded.

Many State water programs conduct activities that can be supported by a fee for service. These fees are levied on private parties (citizens or businesses), or on municipalities. Businesses and municipalities often pass the costs on to other parties. Other fees may represent the cost to society of an action taken by a municipality or private entity or individual.

Another issue relates to the efficiency of operating a variety of fees and fee structures, each one adjusted to the specifics of an individual State service. It can be administratively burdensome and potentially frustrating to the regulator as well as the regulated or serviced community to initiate, collect, or pay many small fees. Thought should be given to an integrated fee schedule or one larger fee, rather than several small fees.

Moderator **Ms. Linda Eichmiller**
Deputy Director
Association of State and Interstate Water Pollution Control
Administrators (ASIWPCA)

Key Points by Panelists Ms. Eichmiller, as moderator, polled the States represented in the audience and announced the results. Seventeen had alternative funding mechanisms, fourteen had fees, and four were considering changes.

Mr. Arnold Schiffman
Assistant Director
Ground Water Quality Management
Division of Water Resources
Department of Environmental Protection
New Jersey

The fee system which supports the New Jersey pollutant discharge elimination system (NJPDES) is one of the most complex in the country. The fees are:

- Established by regulation, not the legislature;
- Deposited in the general fund and must be annually appropriated back to the program. However, they are earmarked only for the program.
- Collected through permits which can be revoked for non-payment. (The penalty is \$50,000 per day.)
- Based on the estimated cost of the program, not the service cost of individual permits. The State keeps track of program costs to establish a budget but not to justify an individual permit fee.

Shortly after the fee system was established, the courts overturned the New Jersey fee system because it purported to, but in actuality did not, include environmental risk, e.g., a pound of sand discharged would cost as much as a pound of dioxin. This court ruling for the first time clearly established the polluter pays principle - that those who do the most to create injurious conditions should bear a greater share of regulatory costs. The court went on to say that if the challenged regulation actually scaled the fee structure proportionate to the degree of harm threatened by the permittee's discharge, the court would have no problem sustaining the validity of the regulation. The fees are now proportional to the degree of risk threatened by the discharge, and this has been upheld by the New Jersey Supreme Court. The fees are assessed on the public and private sectors, excepting only schools and religious organizations. The fee schedules cover fringe and indirect costs, whereas general revenue funds do not directly include these costs in the agency budget.

New Jersey has about 2,000 permittees and fees are relatively large. The average annual fee is about \$8,000; however, permit fees over \$250,000 have been assessed.

By contrast, when the Underwater Storage Tank (UST) Program was established, a large universe of permittees was available (25,000). Therefore a small fee, \$100, was set. At \$100, 25,000 registration fees brings in \$2,500,000 annually.

See Appendix C for details.

Mr. Barker Hamill
Chief, Bureau of Safe Drinking Water
Division of Water Resources
Department of Environmental Protection
New Jersey

While the polluter pay principle works for surface water, it does not work as well for drinking water. New Jersey drinking water programs are funded from four different sources, which makes for a balanced funding program totalling about \$4.5 million:

- General appropriations, which include a relatively fixed amount that they have been able to hold onto, part of which go directly to the State laboratory to do analytical work.
- A relatively fixed EPA grant which has had only very small increases since the 1970s.
- A water tax, one penny per 1,000 gallons, collected by the Treasury, which provides the bulk of their program funding.
- Fees increased over the last year and a half. They include:
 - annual operating fees based on the size of the system, ranging from \$120 to \$3,280;
 - construction permit fees ranging from \$100 to \$1,200 per permit; and
 - physical connection permits, about \$200 each, which raise only a small amount of money and do not appear to be too helpful.

New Jersey also is looking at a system whereby local agencies collect and use fees without State involvement. This would lessen the burden on the State and provide incentives for local agencies to handle their portions of the program.

A tax provides a broad base and adds minimal collection costs. While taxes are difficult to raise, much of the populace is not greatly opposed to a tax base to support these programs. Fees are easier to change. In requesting additional fees it is very useful to add additional services at the same time. New Jersey's combination of support has provided a fairly good funding source.

Mr. Stuart F. Bruny, P.E.
Chief, Division of Public Drinking Water
Ohio Environmental Protection Agency

Our annual drinking water budget is about 2.95 million dollars with about 33% of 1 million dollars coming from our Federal grant and the remainder through State general revenue funds.

Ohio EPA has had a program of fee generation since 1980. All fees are returned to the general revenue fund. Civil penalty assessments generated through agency enforcement actions are also returned to the State's general revenue fund, although some hazardous waste fines are returned to an Ohio EPA rotary account to be used for emergency cleanups.

There is no direct correlation between the amount of fees deposited in the State's general revenue fund and the amount of money returned to the agency's operating budget. In other words, if a particular fee program generates \$300,000 per year, it doesn't mean we get that \$300,000 back to Ohio EPA. Other than perhaps the solid waste program, none of the agency's programs are self supporting through the fees they generate.

Specific fees charged in the drinking water program include:

1. Plan review;
2. Lab certification; and
3. Operator certification.

Ohio has required public water systems to perform their own drinking water analysis for the last several years.

During 1988, our fees generated a total of \$361,000 dollars. This represented about 1/6 of our total drinking water budget. Considering the 3 programs individually, the plan review and operator certification programs were nearly self sustaining, but there was a major shortfall in the lab certification program.

Now, let's look at our recent proposal for generating additional funds through a supplemental financing mechanism. In the drinking water program, we sat down and tried to determine how much additional staff we would need in the next two years to maintain our existing programs and to continue implementation of the SDWA Amendments of 1986. Since many of the drinking water regulations are not yet final, there was a lot of guessing in figuring out how many additional people we might need. Our estimate represented a 26% increase in staff over the next 2 years.

Our Office of Budget and Management (OBM) told us there would be no tax increases. We then examined various alternatives to general supplemental funding, including:

1. Increased Federal funding;
2. Increased fee generation, which included:
 - a. raising the fees for services we currently charge
 - b. establishing new fees for existing services such as sanitary surveys or new site inspections
 - c. or a combination of these 2 options;
3. Establishing a water user's fee which included several options, including:
 - a. a user fee based on the amount of water used by customers of community water systems.
 - b. a flat fee plus user's fee
 - c. a flat fee per service connection at community water systems.
4. A straight increase in general revenue funds even though our OBM said this wasn't likely to happen; and
5. A cut in existing programs.

Analyzing these five alternatives, we didn't see much hope for increased Federal funding, or State general revenue funding. We also felt it very inappropriate to cut existing programs, as we are not conducting any unnecessary or unneeded activities.

The alternatives of raising our existing fees and charging new fees for current services was discounted because some of the fees turned out to be exorbitantly high in order to support the proposed expansion of our program. There are also obvious administrative problems in charging different fees for each service provided.

We therefore focused our attention on the water user's fee alternative (Alternative 3). Our proposal included a proposed fee of 1.5/1000 gallons charged to users of community water systems; this would affect 1600 water systems in Ohio. Of those 1600 systems, about 900 are unmetered systems; for these we proposed a flat fee of 75/quarter for each active service connection; resulting in a 3.00/year charge. To the average metered homeowner using 300 gpd, the 15/1000 gallons would mean a fee of \$1.64 per year.

As you can see, the unmetered customer would pay a higher rate. We did this to encourage installation of water meters at these 900 systems.

Our goal was to improve water conservation through the installation of meters as unmetered customers typically use much more water.

Our proposal also included a \$1000.00 per year cap on large water users, meaning that any one using more than 180,000 gpd would benefit from the cap. We did this hoping that the large water users would not band together to fight this proposal. The fee does not apply to water sold by one community water system to another for resale to customers.

We proposed that the water systems collect the fees as part of their normal billing process and then make quarterly returns to the State. In an effort to have our water systems support the proposal, we allowed the water system to keep one-half of what they collected. The water system's share could be used to cover the cost of collection of the fees and disbursement to the State, and in some cases, provide funds to help pay for increased monitoring requirements under the SDWA. We estimate the proposed fee would generate \$6 million per year, of which 3 million would go to the State and 3 million to the water systems.

This proposal is currently being debated in our legislature. The House Finance Subcommittee has recommended that the fee be deleted from the budget process and perhaps be considered in separate legislation.

Ms. Lydia Taylor

Administrator

Management Services Division

Oregon Department of Environmental Quality

■ Oregon's environmental quality budget is funded:

- 25 percent from State general revenues;
- 30 percent from Federal revenues; and
- 45 percent from other fee sources.

■ The fee portion is being moved up to 64 percent this year.

■ To obtain greater flexibility and larger amounts of money, Oregon has been adding fees which depend on products or on volumes of solid or hazardous waste. Examples include:

- \$1 per tire, 85 percent of which goes for recycling programs and waste tire cleanup;

- \$20 a ton on hazardous waste disposal; and
 - \$2 a ton on solid waste disposal.
- Fees are not expected to cover 100 percent of the costs; most programs have two or three funding sources, which gives advantages in cash flow management because Federal grants and fees don't always arrive on the first of the month.
 - To control administrative costs of collecting fees, Oregon intends to add additional fees on groups who are already registered with the State for other reasons.
 - Fees are written so the revenues can be used flexibly in a variety of environmental programs.
 - Revenue from fees has increased from \$6 million to \$41 million since 1979. Oregon now has 29 fees. This has been accomplished through a program of:
 - getting interested parties to agree there is a problem to be solved (not that "we need more money" for current programs);
 - forming a representative advisory group of all interested parties with a strong voluntary chairperson;
 - providing the group with ample information and analysis and listening to their advice and recommendations; and
 - keeping the group advised throughout the implementation phase.

This process provides an excellent political base for recommendations for the legislature.

- Establishing equity in fees tends toward complexity in the number of categories, and does not take into account the ability to pay.
- If fees are dedicated to fund specific activities, as they are in Oregon, complex budgeting and recordkeeping can result.
- Fees can also lead to over-dependency, which can work against you in recessions, or in a perceived danger of yielding to the pressures of those regulated (who also can lobby against your fees).
- Fees also do not solve the problem of how to fund nonpoint source programs. Funding such programs will take new relationships, e.g., with agriculture.

All the panelists agreed that there could be pressures to provide cost accounting to justify fee amounts. This could be a burden which would be very expensive and is best resisted by emphasizing that fees were supporting a program for the State, not individual services for each fee payer.

Other Points Included:

- Do not introduce a fee system at budget time - it will be seen as a hidden tax.
- Greater equity leads to greater complexity, though it is hard to determine equity, i.e., who is what percent of the problem.
- If a fee generates a great deal of revenue, have a cap beyond which it flows to the general fund. This can avoid backlash against the fee or toward the program.
- Try to dedicate fees to the program - it lessens support if the revenue goes to the general fund.
- Programs supported only by fees often have cash flow problems.

Panel **Designing and Adopting Special Taxes**

Introduction Taxes to fund water programs are typically used when program funding needs are large and when the benefits of an activity are widespread. Unlike fees, there may be less of a direct relationship between the tax and the use of the funds.

Taxes are generally charged from either sales, income, or property bases and can be universally levied or targeted to those who have an impact on or gain a benefit from the service. Consideration of equity - who should pay - is an important element in the nature and application of a tax to support water programs. General taxes may be more appropriate to support general water program costs. Specific taxes can be most useful to fund activities where benefits are clearly tied to the individual or entity paying the tax.

Taxes dedicated to environmental programs and, in particular, to water programs are less common than dedicated fees. State legislatures have tended not to dedicate tax revenues from a particular source to a single program, although some environmental examples do exist.

Moderator **Mr. Steve Brown**
Director
Center for Environment and Natural Resources
Council of State Governments

Mr. Brown noted the public has expressed support for environmental programs, even if this has meant more taxes.

Key Points by Panelists **Ms. Mary Ann Dickinson**
Acting Director of Planning
Connecticut Department of Environmental Protection

Connecticut attempted to expand its conveyance tax on land transfers as a way of funding open space purchases and affordable housing. The process is instructive for those considering taxes to fund water programs.

- Disappearing open space in Connecticut is perceived to be of crisis proportions - one half to one percent of the State's total land area each year. There has not been a major State land acquisition effort since the 1950s.

- Interest groups got together and the Governor agreed to support a \$100 million bond issue over a five year period for State acquisition of land.
- To support local land acquisition they decided to use a conveyance tax of half a percent on all land transactions, paid by the buyer, based on experience in Nantucket. Nantucket in 1983 put a two percent tax on all land transfers, paid by the buyer. Charitable donations, gifts of property, and the first \$100,000 for a first time home buyer were exempt. The tax was intended to be simple and effective and to raise about \$80,000 a week.
- The tax revenues would keep pace with development, and therefore are inflation proof, and would harness the vigor of the market for the goal of open space preservation.
- The Connecticut tax was supported by a lobbying effort of 1,500 organizations, including 97 land trusts and paid professional lobbying.
- In the end, it failed for several reasons. First, it was enabling legislation rather than a mandatory tax, so a community had to choose to adopt it. Second, it tried to do too much and was too complex. In this case, the tax revenues would have been used for two purposes: affordable housing and open space purchase, with some additional discretionary use of part of the revenues. There were complexities of required open space and housing plans, and also required actions once funds reached a certain level in the community. Equity considerations also appeared - a town with expensive real estate would have much greater revenues than a small, less wealthy town. A summary report, after the proposal failed, listed seven main objections:
 - it gave the towns power to levy a new tax;
 - it set up a dedicated fund, which the legislature did not like;
 - it tapped a potential State revenue source, which could go to reducing the deficit;
 - it had the potential to drive up land and housing costs, which concerned the real estate industry;
 - it did too much or too little for open space or affordable housing, depending on your perspective;
 - it combined housing and open space.

■ Suggestions for future attempts to adopt a new tax include:

- clearly identify the funding need;
- design a program that is easy to understand and therefore supportable;
- make it a bipartisan effort and get the governor's support, if possible; and
- build a prairie fire of support and create unusual alliances.

The water funding situation in Connecticut is grim. The money required is for more than that proposed for open space. The Federal government should not forget that water is often a regional resource of multi-State concern, and should not shirk the Federal responsibility to help support water pollution and drinking water programs.

■ Connecticut is also considering a three cent tax on each roll of toilet paper and any other products which go down the drain including laundry detergent, chemical drain unpluggers, etc.

■ Connecticut is also considering a public trust lands leasing program, with a minimum \$1,250 fee for new activities (such as a dock) in public trust lands.

Mr. Alan Stanford
Senior Water Quality Analyst
Bureau of Water Quality
Idaho

■ In 1969, with great foresight given today's financial crisis, the Idaho legislature created the tax-based water pollution control account (WPCA) to be used to correct point and nonpoint sources of pollution. It was originally created to match Federal grants and to assist communities throughout the State to install waste water facilities while maintaining reasonable fees. The account was originally funded from a \$1.5 million bond issue in 1970. Since then, it has received 100 percent of the tobacco tax, 6.7 percent of the cigarette tax, 80 percent of the inheritance tax, and \$4.8 million annually of the sales tax. Legislation was introduced in 1988 to give the account three percent of the sales tax as well. The Idaho economy is good; the fund may provide quite a lot of money.

■ In 1980, the WPCA had such a surplus that the legislature decided to create a separate State grant program for wastewater facilities, and 75 percent grants for agriculture pollution control projects in conjunction with soil conservation districts.

- The account has been so successful that it has been used for a number of related and unrelated purposes over the years. This is another example of a supposedly dedicated fund “robbed” by other interests when revenues accumulate. Administrative costs for the grants program have been included. Six percent of the account revenues also support special water quality studies. Two years ago, the legislature decided to fund not only the water quality but the hazardous waste bureau budget as well. Account money has also funded prison riot cleanup, forest fires, medicaid shortages, etc.
 - Management of the fund has changed over the years, and the SRF matches will also affect the WPCA.
 - Idaho cities have realized the WPCA is an important financial resource, and the legislature now continuously demands explanation about why the account should stay intact and be used solely for its original purposes.
 - A summary of the growth in revenues and expenditures for the Idaho Water Pollution Control Account is included in Appendix D.
-

Mr. Jon G. DeBoer

Director

Technical and Professional Department

American Water Works Association

- From the point of view of the consumer and the industry, the difference in impact between a tax and a fee is not important, though if you call it a fee it should relate to the cost of a service.
- The water industry is not concerned with whether taxes are general fund or special use taxes.
- If you take the ASDWA needs figures and apportion needs across the country, the amount per household would not be great, compared to the costs of operating water systems nationwide.
- The industry believes that taxes or fees collected from it should be used for water programs and not raided for other purposes.
- From the point of view of the water industry, revenues from general fund taxes might best be used for broad-based functions such as enforcement, regulatory development, data management, program management and public education.

- Special use taxes could support survey and inspections, training and assistance, enforcement correction and plan review.
 - Fees might most equitably support specific programs such as laboratory services, permitting, plan review, certification, and training.
- The water industry recognizes the problems of ability to pay, particularly in small systems.
 - On the other hand, large utilities do not feel they should be assessed the full cost impact on a per user basis.
 - Utilities and States should be involved in developing U.S. EPA regulations. Utilities want to see fee or tax systems that are simple to implement and flexible to allow a utility to operate its program in the most effective way. The water industry recognizes the State financing problem and is ready and willing to accept new taxes, but would like to be involved in designing them, and in designing the U.S. EPA regulations that States must implement.
 - Utilities are also interested in seeing State agencies maintain primacy and be funded so as to operate effectively and efficiently.
 - A list of recommended funding sources associated with functions to be supported is included in Appendix E.

Other Points Included:

- National polls continue to indicate that the general public supports environmental programs, even if that means they will personally be taxed to support a cleaner environment.
- The Council of State Governments analyzed all State budgets for fiscal year 1986 and aggregated funding into 17 environmental categories. States spend more on water than on any other program.

Designing and Adopting a System of Dedicated Fines and Penalties

Introduction

Fines and penalties are imposed primarily for violations of laws, regulations, or permit stipulations. Fines and penalties may be imposed for civil or criminal offenses and may be levied administratively or judicially. Whereas fees and taxes may be collected in everyday activities, fines and penalties do not typically provide a steady stream of revenues for program operations. If they are dedicated to support operating programs, which would include enforcement costs, conflicts of interest could ensue. However, if they are dedicated to a separate program that benefits State water quality, this problem could be avoided.

Fines and penalties may — through a large, one-time fine or penalty or through accumulation over time — provide the initial capital that can form the basis for a fund that can be used to implement specific water programs which benefit the State. A plan that can be implemented in the event of such a windfall could ensure that a large fine would specifically benefit designated water programs.

Fines and penalties create positive incentives by encouraging improved compliance within the regulated community. Over the long run, the goal would be to eliminate fines and penalties through cooperative programs to address water quality problems proactively rather than retroactively.

Moderator **Paul Shinn**

Manager

Government Finance Research Center

- Fines and penalties differ from other funding sources in three major ways:
 - they are paid only on an exception basis — when things go wrong;
 - they are one-time payments; and
 - in the long-term they should disappear as violations disappear.

- In the short run it is appropriate that fines and penalties be used for the environment. However, three elements are essential to developing them as a funding source:
 - there have to be laws, rules, and regulations which clearly establish what constitutes a violation;
 - there has to be enforcement; and
 - there has to be a process to bring violators to judgment, which can be administrative or judicial.
- Fines and penalties can go into:
 - the general fund;
 - the general fund on a reservation basis for specific programs; or
 - a restricted fund managed by a State or third party.
- Advantages of fines and penalties are:
 - “polluter pays” is appropriate and equitable because everyone can choose to comply with the law and avoid the fine;
 - fines are flexible and can be tied to ability to pay and the seriousness of the offense;
 - they have public approval; and
 - they create the proper incentive.
- Disadvantages include:
 - much effort and expense in the enforcement process; and
 - sporadic revenue which is therefore unreliable for operating costs.
- In operating the system:
 - keep the fines reasonable — we want compliance, not bankruptcy;
 - be prepared to prove that they are reasonable;
 - try to find a prime mover who will help to push a program to use fines through all the obstacles;

- identify the beneficiary of the fine, which may make it more acceptable to the judge and the violator;
 - identify who should manage the revenue, perhaps a third party; and
 - identify what the money will be used for and in doing so, avoid even the appearance of conflict of interest.
- According to a GAO report *Water Pollution, Stronger Enforcement Needed to Improve Compliance at Federal Facilities*, these facilities are twice as likely to be in noncompliance as municipal facilities.
-

Mr. William Nuzzo

Chief, Office of Water Program Coordination
U.S. Environmental Protection Agency, Region I

The Massachusetts Bay Credit Project/Massachusetts Bay Trust Fund was created as part of a settlement in which the Commonwealth of Massachusetts agreed to pay \$2 million to establish a new trust fund and a \$425,000 fine to the Federal Treasury for the discharge of pollutants into Boston Harbor over a long period of time. The Massachusetts Bay Credit project is an example of a dedicated fine or settlement being used to directly support environmental cleanup efforts; the Massachusetts Bay Trust fund is an example of a management mechanism needed to direct the use of the penalty funds.

The Trust Fund would be used to coordinate and fund projects dedicated to restore and protect Boston Harbor. Remedial projects include the restoration of impacted beaches and salt marshes. In addition, the Trust Fund provided seed money to develop a Massachusetts Bay Estuary Project that would eventually lead to nomination for the National Estuary Program.

U.S. EPA's penalty policy under the Clean Water Act does allow for flexibility in using penalty revenues for beneficial mitigation projects, rather than just payments to the U.S. Treasury. Mitigation projects must be in addition to all regulatory environmental compliance obligations and provide benefits of full compliance, and should closely address the environmental effects of the defendant's violation.

Before the settlement could be reached, there were protracted negotiations within U.S. EPA, and between U.S. EPA and the U.S. Department of Justice (DOJ) over the proposed use of the fine. DOJ was looking for implementation of concrete remedial action, and did not favor "studies" unless they would clearly lead to implementation.

- There are some guidelines for using penalty funds to establish environmental credit projects and environmental trust funds:
 - the projects should be clearly related to effects of the violator;
 - the projects should provide benefits beyond benefits of full compliance;
 - the activity must be in addition to all regulatory compliance obligations; and,
 - the project should have clearly defined milestones and completion dates.
 - One good use of fines is for studies which would not otherwise be conducted, or support for activities in high priority resource areas such as Vermont's Lake Champlain.
-

Other Points Included: During discussion it was noted that in Nevada some polluters would prefer to provide equipment, conduct studies, or provide erosion control work rather than have on the record payment of a big cash penalty. This could help the local environment in lieu of fine revenues, which the law requires be placed in the general fund. The usefulness of third party involvement was stressed. This was the case in the Kepone incident on Virginia's James River. In lieu of partial fines, the company gave money to a third party to establish the Virginia Environmental Endowment.

- Other points which arose during the question period included:
 - Settlements should insure that corrective action is taken on the problem; a fine is not enough.
 - Fines should be high enough to ensure that people install pollution correction equipment rather than merely pay a low fine.
 - Part of the enforcement procedure should include additional fines for not correcting the problem within an agreed upon time.
 - The fine should never be less than the cost of proper behavior.

Panel **Management Funds: Once the Money is Available, Pooling and Managing It for Revenue Growth**

Introduction Fund management is as important as raising revenues. Financial management mechanisms aggregate sources of funds, link them with their intended uses, and can be used to increase the value of resources between the time they are collected and disbursed.

The traditional, most commonly used financial management mechanism is the budget process through which general revenues are collected and funds are appropriated to government programs on a regular basis. The issues of continuity and flexibility in the receipt and use of general revenue funds under current economic conditions call for independent financial management mechanisms such as trust funds, environmental endowments, and enterprise funds. All of these are designed to channel specific sources of revenue to particular places.

Management funds require careful tailoring to an individual State situation. Among the elements to address are the time period over which funds may be drawn down, the connection and trade-off between management funds and general revenues, and the impact of surcharges on existing funds.

Moderator **Mr. George Ames**
Executive Director
Council of Infrastructure Financing Authorities

Key Points by Panelists **Ms. Carol Jolly**
Assistant Director
Water and Shorelands
Department of Ecology
Washington

This workshop is an ideal way for U.S. EPA to help States move into the future. Washington State has a wide variety of fees, several new taxes, and a proposal now before the legislature to use fines and penalties. Revenues are used in all environmental programs. The State still relies on State and Federal general funds to support much of the base program. It would be a mistake to rely too far on specialized funds.

■ Washington has about 15 fees for its environmental programs including:

- a vehicle emissions fee that funds inspection and maintenance;
- a wood stove fee, based on the sales of wood stoves, which funds educational programs about the air hazard of wood burning; and
- a grass seed fee used to study alternatives to burning grass fields.

The fee programs specify they should cover the cost of the service.

■ The Centennial Clean Water Fund was created in 1986. It is based on an eight cent tax on cigarette and tobacco products supplemented by:

- an additional sales tax on pollution control equipment for projects funded from the account; and
- a general fund complement to provide a revenue floor.

Essentially, all the revenue (about \$45 million/yr.) is passed through to local governments.

■ In addition, Washington has:

- a laboratory certification program, passed in 1987, with fees to make it self-supporting;
- a wastewater operator certification program, passed in 1987 and containing a fee structure to make it self-supporting by 1991; and
- a wastewater permit fee program for all State and Federal permit holders, passed in 1988, with fees ranging from \$100 to \$100,000 per permit per year. This will raise about \$3.6 million a year.

Fees will not cover all program costs. There is a conscious effort to maintain a balance in the agency budget, which is currently 40 percent State general funds, 20 percent Federal funds and 40 percent alternative funding mechanisms.

■ All alternative funds are in dedicated accounts to be used for the specific purpose for which they were created. Funds revenues are specifically excluded from supporting the enforcement part of the

water program. All funds must be appropriated before they are available. However, for management purposes, the treasurer's office handles them as a pool.

- Funds are invested in government securities and low risk investments, 60 percent with maturity dates of less than a year.
- The Treasury Office's role is to maximize investment return and monitor cash flow.
- Eighty percent of investment return is prorated to dedicated accounts based on their percentage of the total pool where it is treated as direct revenue; 20 percent goes to the general fund. The Centennial Fund generates \$4 million a year in interest but cannot invest in corporate debt. Operating accounts are expected to zero out at the end of each biennium; others do not have to.
- Disadvantages:
 - substantial administrative complexity — the State had to totally revamp its accounting system due to complex hazardous waste cleanup fees;
 - there is a danger of perception that general fund support is not needed anymore, this must be avoided at all costs; and
 - danger of client overload, particularly as several fees begin to hit the same clients.
- In establishing a fund, it is important to focus on flexibility and creativity. Washington legislature is now looking at bills to charge those responsible for spills or illegal discharges for pollution damage. The monies would go to a special account to restore the environment to its previous condition, or to pay for damages. If State staff has to clean up damage, they could be funded by these special monies instead of drawing on base programs. This financing mechanism has the advantage of serving as a disincentive to undesirable behavior.

Mr. William Brierley
Director of Public Facilities
Department of Environmental Conservation
Vermont

- In 1987, Vermont introduced legislation to create three revolving funds — pollution control, water control and solid waste. Only pollution control is funded at this time.

- All funds would be operated jointly by the Department of Environment Conservation and the Vermont Municipal Bond Bank, which would be the financial manager.
- The Bank would make loans, collect repayments, chase delinquent accounts, and invest unused balances. Vermont Bond Bank can invest unused balances in the same manner as the State treasurer can invest State balances.
- Loans were to be for 20 years, equal annual payments, interest rates set by the treasurer between zero and 80 percent of State's interest rate.
- Vermont felt it could finish all necessary sewage plant and combined sewer overflow projects by 1994, the date of the last Federal grant appropriation. But the State anticipates growing needs for water supply revenues, and faces major new mandates in solid and hazardous waste as well as water quality management. This led the State to assess its overall needs over 10 years and the resulting shortfall. This turned out to be \$208 million. (Details are in Appendix F.)
- \$56.7 million of that total is expected from the following dedicated revenue sources:
 - gas tax of one cent per gallon generating \$3 million a year;
 - hazardous waste generation of 7 cents per gallon or 9 cents per pound;
 - petroleum tank assessment of \$200 per tank;
 - solid waste tipping fee \$2.40 per cubic yard, or \$6.00 per ton; and
 - annual appropriation from the transportation fund to handle hazardous waste.
- The agency brought together the Bond Bank, the Vermont League of Cities and Towns, and other parties to discuss how to deal with the needs. The group considered creation of a Vermont Environmental Assistance Financing Fund, a free standing authority of five people (Secretary of Vermont DEC, State Treasurer, two bankers, one municipal representative).
- Each year the agency would request all capital appropriations from the fund. The authority would determine what they could fund and request the balance from the legislature, which would

appropriate funds back to the authority. The authority would determine how much of the funds would be loans, and how much used for other purposes, and define the terms of the financial assistance.

- This would equalize financial stress among recipients. For instance, the authority might say no project could generate an annual costs in excess of one percent of the median family income, and tailor the grant or loan to achieve that.
- The governor decided to ask for a year's study on the proposal.

Political constraints:

- the treasurer doesn't like dedicated funds;
 - the legislature has mixed feelings about dedicated funds, and doesn't like authorities; and
 - the Bond Bank feels it must be kept simple.
- However the decision goes, Public Facilities would like to expand its financing programs to include land acquisition and wellhead protection.

Mr. Steven Binder

First Vice President

Prudential-Bache Capital Funding

- Water (and pollution) cultures vary from State to State and this influences the funding mechanisms that can be used.
- We have made an error in this country for at least 75 years in how we view the financing of water, and the financing and cost of pollution.
- Water has been badly underpriced historically both in what is charged the consumer and in the calculation for true depreciation and replacement of facilities. Compare a \$55 monthly television cable hook-up with a \$12 monthly water fee, or a 60 cent municipal discharge limit with the cost of a pizza. Yet imagine the public outcry if the \$12 monthly water bill were raised to \$18. The public has come to believe that drinking water is safe and cheap and subsidized, so the real value of water has been obliterated. The primary cause of today's problem is old, wrong ways of financing.

- We need to recognize that we have government expenditures for activities that are revenue-producing. We have underfunded, underpriced, and abused a precious commodity. Until we can have a grass roots educational system as to what this commodity is really worth, all of the political discussion on alternative financing will be obscured.
- We are merely rearranging the deck chairs on the Titanic; we cannot manage our way out of this crisis. We need a massive educational campaign on the value of water. The argument must be framed in a different manner. The main argument is "what is clean water worth." There is an economic value to water which is not that difficult to calculate.
- Funds management is as important as raising the revenue. The more complex the program, the greater is the potential for disaster. Many government agencies do not have the expertise for fund management.
- Funds management:
 - requires that all fund sources be identified;
 - must integrate funding sources and State needs on a time-certain basis;
 - may have to be managed privately;
 - will have to recognize that it is necessary to subsidize small communities;
 - may best be run on a segregated trust account basis. Do not allow it to be commingled with the general revenues of the State.
 - will not be favorably viewed by investment bankers because they will view them as able to be manipulated by State legislatures; and
 - could generate a large surplus in 15 or 20 years if funds are properly managed and local residents realize they will have to pay their fair share.
- Putting projects through the U.S. EPA process can add around 30 percent to the costs (primarily because of the Davis-Bacon Act).
- The Tax Reform Act literally takes the power of good fund management and arbitrage out of the hands of local government and was disastrous for the water financing partnership. SRFs that are leveraged offer the best long term "bang for the buck."

- The bottom line is we are not going to manage our way out of this crisis. The general public is going to have to support clean water and pay.

Regarding infrastructure:

- Depreciation has been unfunded. Governments typically run on an income, rather than on a balance sheet basis, do not take into account the physical depreciation of plants and equipment. Because of this, we will face a huge infrastructure cost over the next 30 years, to build new facilities to replace those built between the Depression and the Korean war.

Other Points Included: Mr. Ames summed up panel recommendations for U.S. EPA to help States:

- Basic principles suggested for U.S. EPA include:
 - be flexible;
 - preserve local choice for the States on setting priorities;
 - promote simplicity in designing and managing alternate funding mechanisms; and
 - recognize that the Federal government has an obligation to help fund State costs to achieve national objectives. This should be a central covenant of a Federal-State partnership. Then we can debate the percentage of funding for each.
- Two basic roles U.S. EPA could fill are:
 - becoming a clearinghouse and focal point to collect, analyze, and share information on financing of State water programs; and
 - sustaining a base line of funding and technical assistance.

Panel **Working with State Legislatures**

Introduction The establishment of new funding mechanisms in the States requires close coordination with State legislatures. New programs compete with existing ones for funding, expertise, and legislative commitment, three commodities much in demand by other sectors.

Effective working relationships with State legislatures depend on constructive involvement of all affected interests and comprehensive identification of the problems and solutions in funding State water programs.

Moderator **Mr. Larry Morandi**
Program Director for Natural Resources
National Conference of State Legislatures

Announced that the panel would look at:

- Substantive policy issues; for example, current and expected sources of revenue and strategies to obtain them.
- Political issues - whether the budget is a Governor's or a legislative budget, and the relationships of the legislative policy committees to the fiscal committees. When you work with administrative costs, you may be working with the fiscal committees only, which changes your budget strategies. You may have a more receptive audience for your needs with program committees than for fiscal committees.

Key Points by Panelists **The Honorable Fred W. Finlinson, Senator**
Chairman, Utah Natural Resources Council
Callister, Duncan, and Nebeker

- Basically we are proposing to move from "soft" to "hard" money, i.e. from Federal dollars to State tax dollars.
- Looking at drinking and wastewater infrastructure costs, Utah foresaw a \$4 billion need through the year 2000. In 1983, Utah used a number of leveraging techniques to create a fund to meet these needs. These techniques included insurance, repurchasing plans, remarketing, tenders, hooks, interest buy downs, letters of credit and grants. They refined the fund in 1985, 1987, and 1988 to include increased leveraging. All leveraging was an attempt to guard and use their most precious resource - - public funds.

- To originally implement the fund, Utah put together a coalition of irrigators, safe drinking water people, transporters, waste treatment people and city officials. This is important because legislatures can work well with agreed-upon bills and goals, but not with mixed signals.
- Basically, administrative costs should not be funded from bond issues, and Utah's 1983 legislation prohibited this, but some modification to this position may be required. The Senator's 1989 bill would have allowed some of the bond proceeds to fund administrative costs of the projects — however the bill did not pass. This is a risky area. The State needs to face up to the fact that it needs ongoing revenue to administer programs, not just set-asides from the capital dollar.

From a legislator's point of view, several points emerge:

- Do not have your bill come up first.
- Avoid one-page bills; everyone will read them.
- Encourage legislators to become advocates, not remain as judges of competing interests. If the legislator is a judge, not an advocate of your bill, you have a problem.
- Keep the legislature advised and informed so they are able to be an advocate. Potential advocates can be identified through the committee structure.

Mr. Marion Fannaly

Administrator

Water Pollution Control Division

Department of Environmental Quality

Louisiana

- Louisiana started with a \$900,000 fee program in 1981 which has grown to \$7 million (63 percent of requirements) today.
- The State's fee program growth was largely forced by reduced general revenues from oil. When oil prices dropped, the State economy did too. In 1988, the State faced a deficit of around \$900 million.
- When this happened the State's dedicated funds, of which the environment trust fund was one, were used to meet the general shortfall and the dedicated funds were abolished. The funds were dedicated by account, but not in a separate bank account.

- Water program fees went up 50 percent in 1985, 30 percent in 1987, and 75 percent in 1988.
 - Other programs saw the water program able to fund itself in spite of the deficit, seized the idea, and started additional fees. Many of the facilities regulated by water programs pay other fees to other programs. It is becoming a significant economic burden. As a result, the system has been subject to legal and political attacks.
 - There is an argument on whether the fees are really taxes. In Louisiana, the fee has to be related to service and cannot exceed the cost of service. However, detailed cost accounting has not been provided to permittees; the State argues that the fee is for maintenance of the entire program. If the State collected more revenue than the cost of the program, and that excess money could be traced as going back to the general fund for some other purpose, it would be the "kiss of death" for the fee. You can win the legal battle and still lose the political one.
 - The fee limit that public will bear may have been reached.
 - The State agency can set the fee based on assigning a dollar value to assessed points such as toxicity and major or minor status, and can change the fee fairly easily. However, it is subject to legislative review.
-

Ms. Pauline Bouchard

Assistant Director

Division of Environmental Health

Department of Health

Minnesota

- Minnesota has been fairly generous to environmental programs, but mostly those unrelated to drinking water. So the State is considering a legislative proposal to create a fee to fund the entire safe drinking water program.
- Historically, State funding has been low. The current Federal share of the program exceeds 50 percent, but the Safe Drinking Water Act amendments have focused the demand for additional funds.
- The State decided to continue to pay for public water supply laboratory work rather than chase after the utilities not complying with monitoring regulations.
- Opinion polls showed that the public was willing to pay more for safe water.

- Minnesota formed a broad-based advisory task force, including a hand-picked environmentally interested State legislator. That effort alone has been worth many times over the amount of staff work put into it. It was a 15-member task force representing many communities including the League of Women Voters, environmental, water well contractors, and large and small water utilities. The charge was specific — they were presented with a program outline which required \$2.9 million over the next five years, asked to evaluate the program and recommend how it should be funded.
- The task force recommended that financing should be through a tax, because the program benefitted all citizens, and therefore revenues should come from the general fund. However, the governor had a position that new services should pay for themselves by fees where possible, so the staff proposed a service connection fee of \$3.20 per year for community water supply hook-ups.
- They took the proposal to the legislature in an off budget year. The policy committee approved the scope of the program. The finance committee approved the program in concept, as well as dollars to get started, but said to return in a year with a report on alternative funding mechanisms, that the program must be largely self-supporting. So the Task Force began again. In the meantime, there was a tremendous groundswell of interest in a broader water initiative, fueled partly by pesticides contamination of some water supplies.
- The agency's bill has now been incorporated in a much larger comprehensive bill on environmental interests — it is a quarter of a page in a 120-page bill totalling \$24 million. There are House and Senate versions.
- The original legislator has left, and the agency feels it is very important to maintain close contact with the legislators. The agency tries to call legislators once a week to see what constituents are saying. The Governor's staff does not usually like this but blessed the procedure in this case. The agency has offered to prepare additional briefing papers, and feels it has the best working relationship with the legislature in 10 or 15 years.
- Industrial revolts against fees can be forestalled by a cooperative discussion about the funding needs of the program and the amount of industry support needed.
- A State might consider going directly to the voters with an initiative to raise funds, but it is hard to sell the need for more administrative costs - public initiatives work better for project costs.

Other Points Included: A panel discussion on the budget process followed:

- In Utah, the Governor prepares the budget, but so does the legislature's analyst, and perhaps also a State agency, and the final budget results from working with all proposals. There is also a split between policy issues and budget issues and standing and appropriations committees. In Louisiana, the Governor dominates the budget process. In Minnesota, the legislature tends to pass the Governor's budget, but the process of drafting the Governor's budget is long and inclusive.

Panel Reducing the State Programmatic Burden

Introduction Supplemental financing mechanisms can help close the funding gap in State water programs. Another approach toward closing the gap involves changes in State institutional arrangements. Three options for States to consider are: technical assistance to forestall future enforcement or clean-up costs; legal and regulatory arrangements to promote use of supplemental financing by other sectors in the State; and third party (local and private sector) participation.

Technical assistance and advice by States to their local jurisdictions, particularly their small communities, can help communities plan for and implement drinking water and water pollution control activities cheaply and efficiently. Investment of State monies up front for technical assistance can also save money by negating the need for costly clean up or enforcement programs.

State legal or regulatory arrangements can enable third party arrangements and save costs for others who implement water quality and drinking water activities in the State. Such arrangements include streamlined regulatory or permitting processes, allowing the use of alternative or innovative technologies, allowing turnkey projects where appropriate, encouraging economies of scale in planning and operations, where feasible, and exploring the potential of regionalization for some small systems.

Local and private sector participation can increase if States make such changes to laws and regulations to allow others to use innovative financing mechanisms. For instance, States may revise bidding procedures or enact privatization laws to allow municipalities to use public-private partnerships more effectively.

Moderator **Mr. Wade Miller**
Executive Director
Association of State Drinking Water Administrators

Five elements can reduce the State administrative burden:

- Engage in preventive activities such as the use of technical assistance, to avoid more costly activities, such as formal enforcement at a later date.
- Leverage resources at every opportunity, for instance, using services of the National Rural Water Association or the Rural Community Assistance Projects to reduce State case loads.

- Examine existing State legal or regulatory arrangements for possible modification to achieve efficiency or cost savings, for instance, using a third party such as the National Sanitation Foundation to evaluate drinking water additives, which is a very resource-intensive operation, or streamlining engineering plan review or permitting processes, or exploring the potential for regionalization or consolidation of small systems to reduce noncompliance.
- Encourage privatization where appropriate, for instance, a State public utility commission could allow a larger entity to purchase a small investor-owned utility.
- Explore wholesale changes to the way in which we do business. For example, during World War II, Britain found it had inadequate water supplies to fight fires. So after the war it passed the Water Act which reorganized all existing water management activities (approximately 1,600 separate water, sewage, and river basin management bodies) into ten hydrologically based water region authorities with authority over all water activities in their boundaries.

Highlights of the dilemma of small water systems:

- There is a major small systems problem; 51,400 of the 58,500 community water systems serve less than 3,300 people; 124,000 non-community water systems receive little attention. 20,000 noncommunity water systems are being reclassified as nontransient, which means they will have to comply with many more regulations.
- Many small community systems are “nonviable operating units”, that is, they probably cannot raise water rates high enough to cover the full cost of service without making water totally unaffordable. Most do not have a full or even a part-time operator. There are no economies of scale possible, little financial or technical management, and often no accountability. When a State goes to take regulatory action, it may not be able to find the responsible party.
- There will always be systems too remote to be merged and too poor to repay a loan or hire an engineer. Since they are needed and cannot be closed, technical assistance is the only viable answer. But whatever the States do, it’s never enough. That’s why NRWA and Rural Community Assistance Programs (RCAPs) are so important — they will go where State and private parties cannot.

- Full-cost pricing ought to be a requirement of all systems including establishment of a reserve fund to cover replacement costs. We have an opportunity under Section 14.16 of the SDWA, the exception provisions, to mandate full cost pricing as one of the minimum requirements for receiving an exemption.

We must do everything we can to encourage private sector involvement. In the past 12 months Mr. Miller has been approached by U.S. and foreign banks and companies interested in buying water systems.

Key Points by Panelists

Mr. C. L. Overman

Executive Director

Municipal Technical Advisory Service (MTAS)

University of Tennessee

- Technical assistance is part of the broad spectrum of actions needed to support water programs, and a way to maximize dollars invested at the local level.
- MTAS, a creature of the legislature, the University of Tennessee, and the Tennessee Municipal League, has been providing services to Tennessee communities for about 40 years. The returns have been very good, a ratio of at least 10 to 1.
- In 1984, the Tennessee Department of Health and Environment asked MTAS for help in providing technical assistance to 250 publicly-owned wastewater treatment plants. Over three years of the program they have invested \$700,000 for the department in technical assistance and seen \$22 million in savings. This is a return of 30 to 1 on their investment. MTAS provided:
 - technical assistance;
 - management development for systems managers;
 - financial analysis assistance;
 - grants and loan assistance; and
 - project coordination and go-between services between the State, the engineers, and the local officials.
- The project staff consists of two civil engineers and a finance person.

- The department uses MTAS rather than its employees for technical assistance so as not to confuse the regulating and technical assistance functions.
- The full MTAS staff has 31 professional people including nine former city managers and 14 support staff. They are financed by:
 - \$1 million from the university budget;
 - \$1 million from 3/4ths of 1 percent of the cities' share of the State sales tax; and
 - about \$500,000 from contracts.

MTAS does not teach or do research. It provides hands-on management and technical assistance to 336 Tennessee municipalities. MTAS provides

- management assistance
 - ordinance codification
 - public works consulting
 - budgeting and accounting
 - information and data processing
- MTAS conducts about 1,200 major projects each year, and 5,000 smaller ones.
 - MTAS' basic goal is to develop self-sufficiency and internal management capabilities for Tennessee cities, to help solve short term crisis and aid long-term planning.

U.S. EPA and the States can help by: 1) promoting similar programs; 2) helping to fund at least one technical assistance organization in each State; and 3) helping local governments to understand that infrastructure is a local government responsibility, and they must have the proper tools to manage it.

Ms. Elizabeth Ytell
Director, Water/Wastewater Division
 Rural Community Assistance Corporation

(A summary of the Rural Community Assistance Corporation programs with specific examples of technical assistance is contained in Appendix G.)

- RCAPs are field-based regional training and technical assistance organizations that grew out of the Department of Health and Human Services (HHS) that originally funded them to give on-site water and wastewater assistance to rural communities.
- RCAPs are based in six regional offices, each of which has about \$800,000 in resources. They leverage about \$136 million with that investment. For example, last year the Midwest Assistance RCAP worked with 120 communities and leveraged \$6.5 million on local projects.
- Mapleton, Oregon hired an engineer to draft plans for a wastewater treatment plant and got a million dollar proposal. The RCAP engineer designed one for \$500,000.
- Deer, Arkansas saved \$135,000 on a well project.
- Funding is now received from HHS, the Farmer's Home Administration, foundations, the Public Welfare Foundation, and U.S. EPA and the RCAP program has expanded to include solid waste and groundwater issues.
- In the western (10 State) RCAP (Ms. Ytell's) more than half the funds are contracted out to 22 different organizations such as the Environmental Training Center, the Northeastern Council of Governments in Colorado, community colleges, and community action agencies. Groups vary from State to State depending on the local politics and situation.
- Typical activities include:
 - information dissemination including newsletters, educational materials, video training materials, and one page fact sheets;
 - outreach programs in which they try to get interested parties together;
 - training conferences and workshops on such topics as financial management, budgeting, planning, rate setting, or hiring an engineer;
 - financing, including helping apply for grants and loans, suggestions on leveraging and working with multiple funding sources;
 - third party assistance for small systems, much of which requires building trust over a period of time; and
 - leveraging funding sources.

RCAPs often end up working with cases no one else will deal with. The community must want the project.

■ Suggestions for U.S. EPA and the States include:

- improving interagency coordination at the State level;
 - documenting success;
 - encouraging proactive rather than reactive (firefighting) technical assistance — prevention vs. crisis management; and
 - supporting RCAP links with States.
-

Mr. Fred Esmond

Assistant Director

Division of Construction Management

Department of Environmental Conservation (DEC)

New York

New York State has a self-help support system, developed by the Rensselaerville Institute, which works in partnership with the New York Department of State, DEC, and small communities. The Ford Foundation also provided some seed money for low interest project loans.

The basic requirement is local initiative — recognition and ownership of the problem. The Self Help Program provides guidance and advice with a goal of at least 30 percent cost savings. Usually the savings are more like 50 to 60 percent. Often the way to get money for these projects is to need less of it, and that is the route Self Help tries to take.

The community builds the project. The effort is not a program with special funding — it is a tool, a way to work with communities. It counts on individuals to make it go. Overwhelming problems become overwhelming opportunities.

Mr. Esmond presented a case study involving Seward, New York, a community of 44 homes.

Seward had a problem involving a storm drain running along the State highway which backed up, leaving sewage in ditches, surrounding wetlands, backyards, and basements. Land values were destroyed and mortgages unobtainable.

- An engineer hired by the community projected a cost of \$530,000 to correct the situation, which would cost \$1,200 per homeowner.

- The current estimate after the Self Help Program is \$165,000. They reduced the costs by:
 - developing a set of worksheets (Appendix H) which outline all of the tasks which have to be performed.
 - reviewing each step to see if there is someone in the community or available in a State office who can do the job at no cost or a nominal cost. For example, the County Health Department did a no cost sanitary survey. The required archeological survey was done by a local professor and his student for \$300. Everybody restores their own lawn.
- One of the major payoffs is the goodwill which developed out of the projects between the community and the government.

At present, New York's Division of Construction Management is limited by resources to about 14 projects at a time. The demand appears to exceed that.

Illinois is interested in the program, and the New York Self Help Program is working on a pilot case with Elkart, Illinois.

Other Points Included: Audience discussion pursued how small communities can stay on an independent course once helped over their crisis. One recommendation would be for SRFs to require financial capability and management responsibility plans and guarantees at the front end. On the question of whether technical assistance generated conflict with the private sector, panelists agreed the problems such assistance usually addressed would not provide good business for the private sector, or they'd have to do it free anyway.

Collaborating with Other Agencies and Third Parties to Accomplish Water Program Goals

Introduction State agencies that operate drinking water and water quality management programs can work with other agencies as well as with regulated interests and the private sector to accomplish their environmental goals. Resources of other agencies and organizations with shared goals can augment those available to the State agency.

Joining resources can produce more “bang for the buck” to accomplish mutual goals and programs. “Third party” arrangements can result where the other agency or organization performs a task that the State would otherwise have to do.

SESSION 1

Moderator **Mr. Paul Shinn**
Manager
Government Finance Research Center

Key Points by Panelists **Ms. Judy Kelly**
Assistant Regional Manager
Gulf/South Atlantic Region
Coastal Programs Division
Office of Ocean and Coastal Resource Management
National Oceanic and Atmospheric Administration (NOAA)

NOAA programs can assist States with water program information needs, and in particular with programs in coastal areas. More and more, NOAA is recognizing the connection between upstream water quality impacts and NOAA responsibilities.

- NOAA has two major databases which NOAA, U.S. EPA and States jointly use in U.S. EPA's National Estuary and Near Coastal Water Programs.
- The National Estuarine Inventory contains preliminary information on land use, wetlands, classified shellfish waters, and toxic pollutant discharges in over 120 estuaries.
- The National Coastal Pollution Discharge Inventory includes discharge estimates for all point, non-point and riverain resources and pollutants in the United States.

- Using this data, NOAA has developed a preliminary estuarine classification system based on pollution susceptibility. U.S. EPA has used this scheme to help prioritize estuaries nominated for the National Estuary Program.
- The wastewater treatment component contains over 3,000 facilities; data is contained in a report Publicly Owned Treatment Works in the Coastal Areas of the United States.
- A major innovative effort is underway both to make this data accessible to State officials on a MacIntosh computer, and to incorporate State data into the data base. They are looking for States to participate in a pilot project for data use.
- NOAA wants to develop closer working relationships among State coastal management programs and water quality management programs. NOAA also has water quality research and management efforts funded through sea grant programs, research opportunities and habitat studies and data available through the National Marine Fisheries Service.
- Congress has called for a renewed and systematic review of the links between the coastal zone and water quality programs with State-by-State recommendations.
- Most coastal States have coastal zone management programs, sharing an annual congressional appropriation of \$34 million.
- Examples of CZM funded program activities which addressed water quality issues include:
 - The State of Washington developed a prototype of a coastal watershed program aimed at correcting bacterial pollution in six major coastal watersheds;
 - South Carolina updated Section 208 plans to improve stormwater management and develop stormwater guidelines;
 - Florida spent well over a million dollars to develop watershed management plans; and
 - On the Federal level, U.S. EPA and NOAA signed a memorandum of understanding to implement the National Estuary Program, and the Coastal Zone Management Act will be reauthorized in 1990.
- NOAA is looking for innovative programs that address coastal water quality issues. State coastal management funds may be available for such projects. Water quality managers are encouraged to renew CZM contacts and seek out opportunities to work cooperatively on these important issues.

Dr. Jim Loftis

Associate Professor

Department of Agriculture and Chemical Engineering
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- To produce a nonpoint source assessment report and management plan, a multi-agency task force with subcommittees on agriculture, silviculture, mining, urban and construction run-off, and hydrologic modification was formed under the auspices of the Colorado Department of Health. This was stimulated by Section 319 of the Clean Water Act.
- The task force produced an assessment report concentrating on surface water conditions; streams which have problems, where they are, and the extent of the problems. There is not much ground-water data for Colorado.
- The management plan consists of best management practices for dealing with the problems and a hope that agencies and individuals will adopt them voluntarily. Some construction grant money has been directed to local organizations for pilot or demonstration projects.
- One such project by the Northern Colorado Conservation District is managing nitrates in the South Platte River Basin.
- The Cooperative Extension Service (CES) and the Soil Conservation Service (SCS) signed a Memorandum of Understanding on the national level, which is filtering down to the State level. SCS will incorporate water quality into conservation plans. CES and SCS staff meet regularly and both include water quality in work with farmers. Work on pesticides and nitrates is particularly important.

The Cooperative Extension is also working with the Department of Health, Water Quality Control Division, on safe drinking water clinics, and with several agencies about starting a ground-water data base.

Mr. Laurence Bowman

Chief, Program Development Branch

Water and Waste Disposal Division

Farmers Home Administration (FmHA)

Department of Agriculture

- FmHA started its water loan program in the 17 western States in 1937. They have made \$9.7 billion in loans and \$3.1 billion in grants for water and waste disposal facilities.

- Presently, FmHA can make grants and loans, mostly for water and sewer systems as a lender of last resort, to public bodies and non-profit associations in towns under 10,000; they like to concentrate on those less than 5,500.
 - They prefer to improve, enlarge or modify water and sewage facilities as compared to building new ones, and give priority to low-income and truly rural communities.
 - Current interest is market rate (7.5%), poverty (5%) for those meeting the guidelines, and an intermediate rate (6.25%). Loans are granted for a maximum of 40 years, or the life of the facility, or in conformance with State law whichever is less. Security is required.
 - Grants are also available to reduce user rates to a reasonable level. Grants can only be made to communities if the median household income is less than the State non-metropolitan median household income. Grants can be as high as 75 or 55 percent depending on the income and need of the community.
 - In the loan program, FmHA experience is to structure the loans so there is reasonable security and chance for the borrowers to repay. The repayment rate has been good for communities. An effort is made not to be too divergent in the objectives of the loans.
 - A circuit rider program is available in all 48 continental States under contract with the National Rural Water Association. FmHA will put about \$2.9 million into it this fiscal year. Circuit riders provide day-to-day operational, management, financial assistance and advice to rural water systems.
 - Starting last year, one to two percent of FmHA's funds have been available for technical assistance and training.
-

Mr. Charles Kreiman

Director of Program Operations

Community Planning and Development

Denver Regional Office

Department of Housing and Urban Development

- Community Development Block Grants (CDBG) funds go directly to cities (70 percent) — generally to those over 50,000; 30 percent of the funds go to States, which then make grants to local governments under State-specific priority systems. Over \$2 billion was available in fiscal year 1989. The money is available for building any public facility except buildings for the general conduct of government. The money has generally been used for housing and also for water projects.

- Virtually all of South Dakota's funds between 1982 and 1986 were spent to improve water facilities in rural parts of the State.
 - Funds spent must meet the national objectives of the Act, the most important being that a majority of users be low and moderate income users. Beyond this, the funding process can be quite broad. States often give priority to water projects based on health issues, coastal zone projects, or ground-water policy.
 - Communities must make local environmental analyses of the projects to see if a full scale environmental impact analysis under the National Environmental Policy Act is required. They also must comply with other Federal laws such as the Davis-Bacon Act.
-

Ms. Janice A. Beecher

Research Specialist

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- While Public Utility Commissions (PUCs) don't have money to give, they do have information and expertise that will help in the financial crisis.
- Forty-five State PUCs regulate the rates of 4,500 private water utilities. Nearly 10,000 water utilities fall under PUC jurisdiction.
- Revenue is under \$15,000 for half of the regulated water utilities, and under \$100,000 for 75 percent. Forty-three percent of PUC rate cases are water utility cases. Therefore, PUCs share the concern over small water utilities.
- The basic principle that "regulation should be in the public interest" leads to a careful balancing act between investors and rate-payers. PUCs have experience in rate setting and in the legal challenges which can occur, e.g., one legal case challenged an assessment on railroads for the cost of regulation because they felt it was a tax, not a fee, and because it was discriminatory in not being applied evenly to different corporate entities.
- There are a number of opportunities for cooperation between PUCs and State water agencies, e.g., in California the PUC and the Department of Health Services agreed to:
 - monitor regulatory water systems;
 - identify contaminants and determine system improvements, including alternatives;

- select improvement projects after reasonable alternatives have been defined and cost analyses performed; and
- establish mutually agreed upon priorities for improvements.

■ Duties defined for each organization include:

Department of Health Services:

- Evaluate public water systems to identify health deficiencies;
- Identify alternative, cost-effective corrective actions;
- Review and approve plans and specifications for water quality improvements;
- Inspect water quality improvement projects during and after construction;
- Share project expense reports with the PUC; and
- Participate in appropriate commission public meetings and hearings.

Public Utility Commission:

- Determine the type of rate relief needed to finance water quality improvement projects;
- Arrange for and publicize public meetings and hearings; and
- Provide an analysis of the financial impacts of water systems improvements.

■ There are ten benefits for State water agencies in coordinating with their PUCs:

- Optimizing mutual expertise;
- Avoiding duplicate effort;
- Ensuring equity and developing informed policy decisions, e.g., fairness among municipal and private interests;
- Sharing regulatory clout, and providing checks and balances;
- Preventing small utilities from falling through the regulatory cracks;

- Avoiding conflicting signals;
- Avoiding confrontation between the PUC and State water agencies;
- Supporting each other politically, e.g., in State budget processes;
- Providing less fragmented, and more efficient and effective water program management; and
- Ensuring better quality water at rates that meet public interest standards;

Two suggestions for U.S. EPA, which came out of the audience participation, were that U.S. EPA should:

- Work with other agencies and utilities to reconcile the need and affordability issues of the SDWA by using existing formulas such as those of HUD's CDBG program, or the FmHA to establish new standards.
- Become more involved in the nitty-gritty of State problems to insure States better apply U.S. EPA directives and to help put coalitions together.

SESSION 2

Moderator **Mr. Michael Cook**
Director
 Office of Drinking Water
 Environmental Protection Agency

Key Points by Panelists **Mr. Nelson E. Fabian**
Executive Director
 National Environmental Health Association (NEHA)

The consensus of local environmental professionals on the ideal State-local relationship is:

- State activities should include:
 - regulation development;
 - technical assistance and consulting;
 - maintenance of an expertise base that the local professional could access;

- education and training;
- management of the general permit process;
- maintenance of an information clearinghouse;
- compilation of centralized data management; and
- general program oversight.

■ Local activities should include:

- most enforcement monitoring (local political concerns might make this difficult, so there should be a provision to refer sticky situations to the State level);
- inspection up through revocation;
- sampling;
- local consulting;
- public education;
- compilation of data for local and State use; and
- generally those functions which require interaction with the public in the field.

■ Local officials contend they know the problems and should be consulted first. They believe State and Federal staff have slower response rates and higher costs and generally know less about local problems.

If this division of responsibilities were maintained, water programs would be more effective and efficient and less costly.

However, this arrangement is not possible in many States. For example, Colorado statutes specifically describe the activities for which permit fees may be used — in effect, State program administration. The State can not subcontract to local communities for the kind of assistance they are capable of giving. State legislatures seem to be ambivalent to changing this - they may fear losing control if such powers were granted to the locals.

County and local health professionals are willing and interested in helping; the tremendous resources they offer are in place. States seem interested in using them. We need State legislative changes to allow

this to happen. Clearing away State legislative requirements which require action at the State level would allow more efficient use of resources at the local level, giving more effective service for the same amount of money.

Dr. Nina McClelland
President and Chief Executive Officer
National Sanitation Foundation (NSF)

NSF, a private consultant, has been in business for 45 years, operating programs in every U.S. State and 26 foreign countries. NSF certifies products and services conform to NSF and other recognized standards. Work is done on a fee for service basis.

- Public dollars will not be enough to fill the financial gap. Private sector funding must be added. Third party services are a way to do this.
- Third party providers are private, independent organizations called upon to bridge the communications and confidence gap that exists between a regulatory agency and those regulated, or between a manufacturer and a user of a product.
- Sometimes third party providers develop standards and sometimes they test, evaluate, and certify products for conformance with standards and accredit laboratories. In many cases, States actually certify laboratories based on NSF recommendations.
- Usually they work on a fee-for-service basis and authorize a registered mark that authenticates the service.
- Success of third parties depends on their competence, credibility, confidence of others in their processes, confidentiality, communications, and ability to build consensus.
- Specifically for water, NSF provides:
 - standards and certification for point of use and point of entry drinking water treatment units. Standards include carbon filters, ion exchange, water softeners, reverse osmosis, and soon, ultraviolet disinfection, distillation, and drinking water vending machines. (23 companies and 250 products with 35 applications pending).
 - certification of bottled water for compliance with U.S. EPA and U.S. EPA regulations (30 bottlers and 210 annual plant inspections).

- drinking water program compliance e.g. in Michigan accredit 140 microbiology and eight chemistry laboratories. These accreditations provide a cost effective way for States and EPA to have laboratories evaluated, either in a single State or against several State standards.
- standards and listings for on-site wastewater treatment devices, recycle and reuse systems, and items such as package wastewater treatment plants.
- NFS also undertakes a variety of research and development projects under contract such as characterizing residuals in waste sludges from drinking water facilities or determining the feasibility of point of entry treatment to reduce radon.
- The goals are to optimize and measure performance, measure costs, and develop procedures for monitoring maintenance and waste disposal.
- Use of these private sector services offers a good alternative to the burdens of greatly increased regulation requirements.

Mr. Paul Foran

Commissioner

Vice Chairman, Water Committee

National Association of Regulatory Utility Commissions (NARUC)

- In providing resources for drinking water programs, the role of PUCs is somewhat limited.
- Extends only to private and investor-owned utilities.
- They usually do not have money to offer drinking water programs.
- Nonetheless, PUCs can be helpful to State and to U.S. EPA .
- PUCs' primary responsibility is to regulate rates and conditions of service for all investor-owned gas, electric, water, and sewer utilities, with a statutory obligation to see that services is safe and reliable. The PUC Act mandates that PUCs ensure water is potable.
- In practice, PUCs rely on the expertise of others, such as U.S. EPA and the States, to develop health and safety standards.
- However, expertise in rate-making, financial, and economic matters can make them valuable in the program by:
 - determining affordability of various treatment methods and how that relates to grant exceptions and variances;

- combining their expertise in local companies and financial and rate-making with State and Federal officials' knowledge in these areas to provide optimal decision-making;
 - determining the effect on the customer rates of large plant additions to comply with the SDWA amendments;
 - discouraging the formation of small, marginally underfunded water systems; and
 - insisting on adequate capitalization of water systems.
- For at least the last 15 years the Illinois Commerce Commission (ICC) has had a dual policy with small water systems. First, they have tried to discourage them or steer them to other means of providing water. They have even denied certificates on lack of financial viability. This has reduced the number of regulated small water companies from approximately 150 to under 80. Second, if a small system is the only alternative, the ICC helps them with technical assistance, recordkeeping, streamlined rate case filings, and time and rate relief.
 - Public utilities provide effective hearing processes and other procedures which provide for conflict resolution and balancing different interests and abilities to pay. Such mechanisms will be essential if SDWA funding will come from a variety of Federal, State, local, and private sources.

In answer to a question, Mr. Foran said he was not aware of any States or PUCs that have formal standards for financial viability. Though these would be useful, they would probably have to go through formal rulemaking and be expensive. The more informal case by case way used allows more flexibility though the success has not been total.

NARUC has come up with general guidelines on how to judge water rate increases. But every time you come up with a standard you come up with an exception. NARUC tries to write standards that are flexible but empirical. Perhaps they can look at median national income in comparison with county income statistics, or unemployment rates to establish affordability in an area.

Mr. Donald L. Coffin
Program Officer, Central Region
 United States Geological Survey (USGS)
 Department of the Interior

The Geological Survey's role is to understand the water resources of the nation and collect data to describe the resource. USGS conducts three broad programs in the area of water:

- A Federal program with its own budget appropriated by Congress including:
 - research and development on cause-effect relationships in water such as analysis of toxic substances;
 - data collection, e.g. on the water quality in the nation's rivers; and baseline monitoring in areas not greatly affected by man's activity, the benchmark program;
 - examination of agricultural chemical runoff; and
 - the National Water Quality Assessment.
- Other programs funded by other Federal agencies such as a review of waste disposal practices at Air Force bases.
- The water effects of Federal/State cooperative program which is funded 50-50 between USGS and the State or local agency concerned. The program is negotiated between the USGS district chief and the State or local agency. Current projects include:
 - ground-water vulnerability in Colorado and Utah;
 - data on estuaries in Texas;
 - water resources of eastern South Dakota;
 - water quality and quantity in the Black Hills;
 - quality of reservoirs for drinking water in Kansas and Texas; and
 - effect of mining activities in western Montana.
- There is also a nationwide water-use program based on county aerial appraisals to inventory who is using what water. We will do county aerial appraisals as well.
- There is always a trade-off between costs and need in the USGS' methodology on pollution detection techniques. However, the water quality laboratory which is usually used operates under U.S. EPA -approved methods.
- Federal money cannot be used to match other Federal money, e.g. U.S. EPA 106 grant funds with those of USGS.

Appendix A Official Conference Attendance List

Financing Strong State Water Programs In New Ways

March 20 -21, 1989

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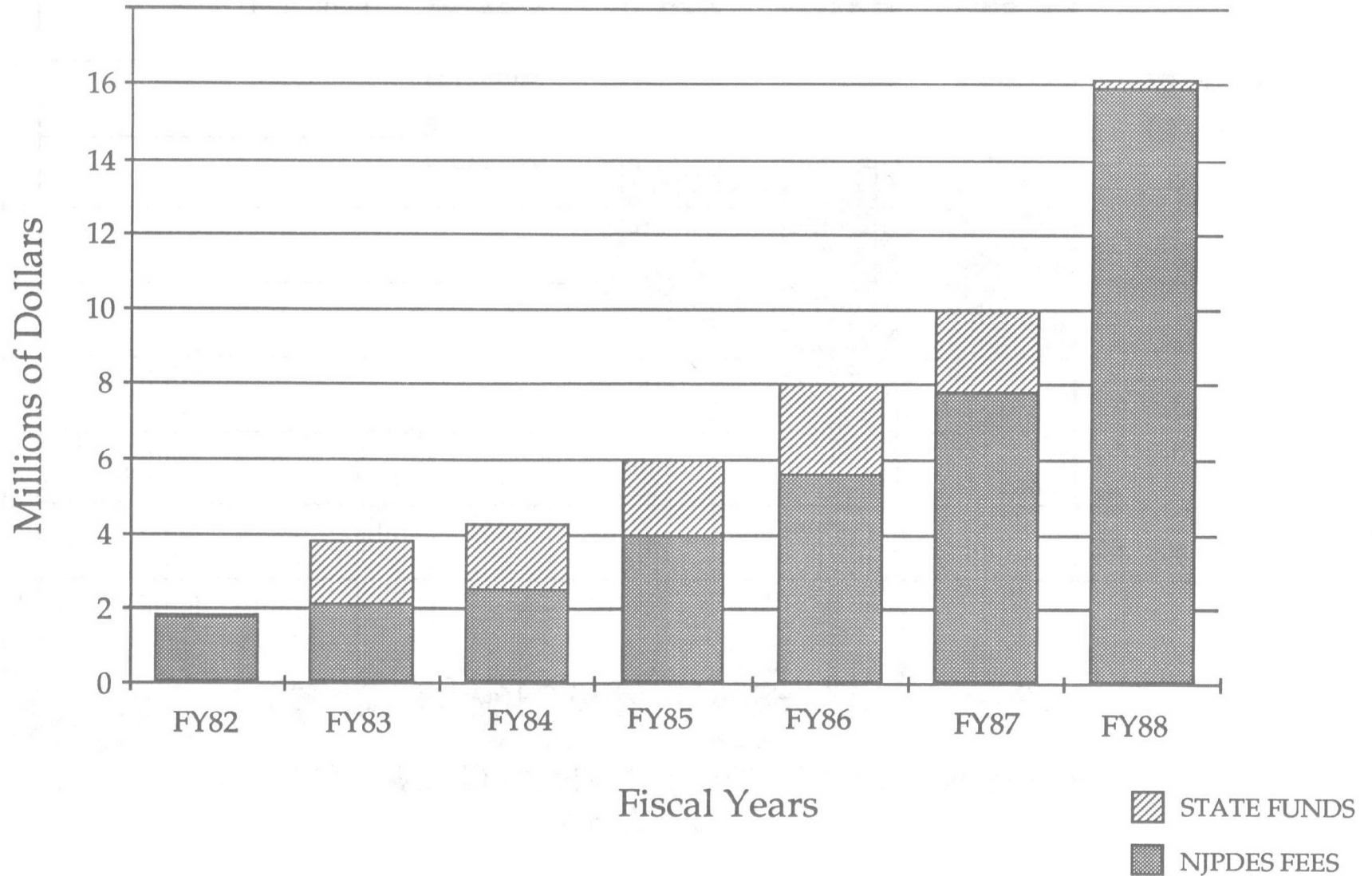
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PROGRAM	TYPE FEE	AMOUNT
Air		
Stationary sources	Permit	\$96/hour
	Annual Inspection	\$60/emission point
	Asbestos	\$55-825
Mobile sources	Vehicle Registration	\$1.50/registration
Solid Waste	Landfill Application Review	\$50/hour/\$5,000 Cap.
Hazardous Waste	Permits and Closure Plans	
Superfund	Solid Waste User Fee	\$.15-.25/cubic yard
Radiation Control	Radiation Services- Licenses X-Ray Inspections	\$67/hour
Water Quality	Discharge Permit Annual Fee	\$220-\$11,000/year
Consumer Protection	Food Service Inspections	\$50/year* *\$30-to locals
	Dairy Products Manufacturing	\$10/licenses
	Drug & Medical Devices	\$25/year
	Dairy Plant	\$10/application
	Mattress & Bedding Manufacturing License	\$5-\$25/license
	Kennels & Pet Shops	\$50/year* *\$30-to locals
	Psittacine Bird Breeder License	\$15/year \$15/year

NJPDES Pollutant Discharge Elimination System Program 1982 - 1988

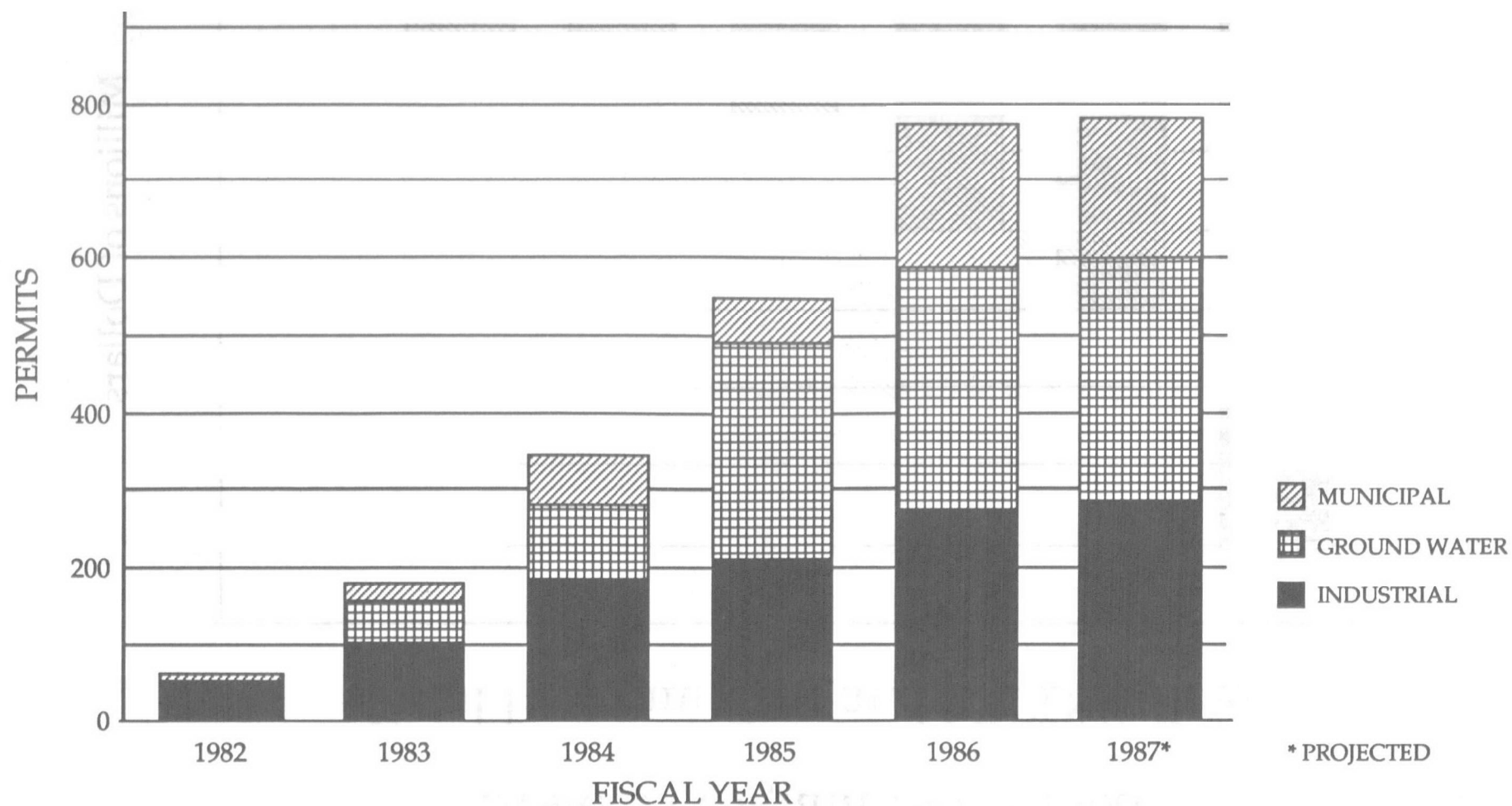
Appendix C
(Page 1)

Total Program Cost and NJPDES Fees



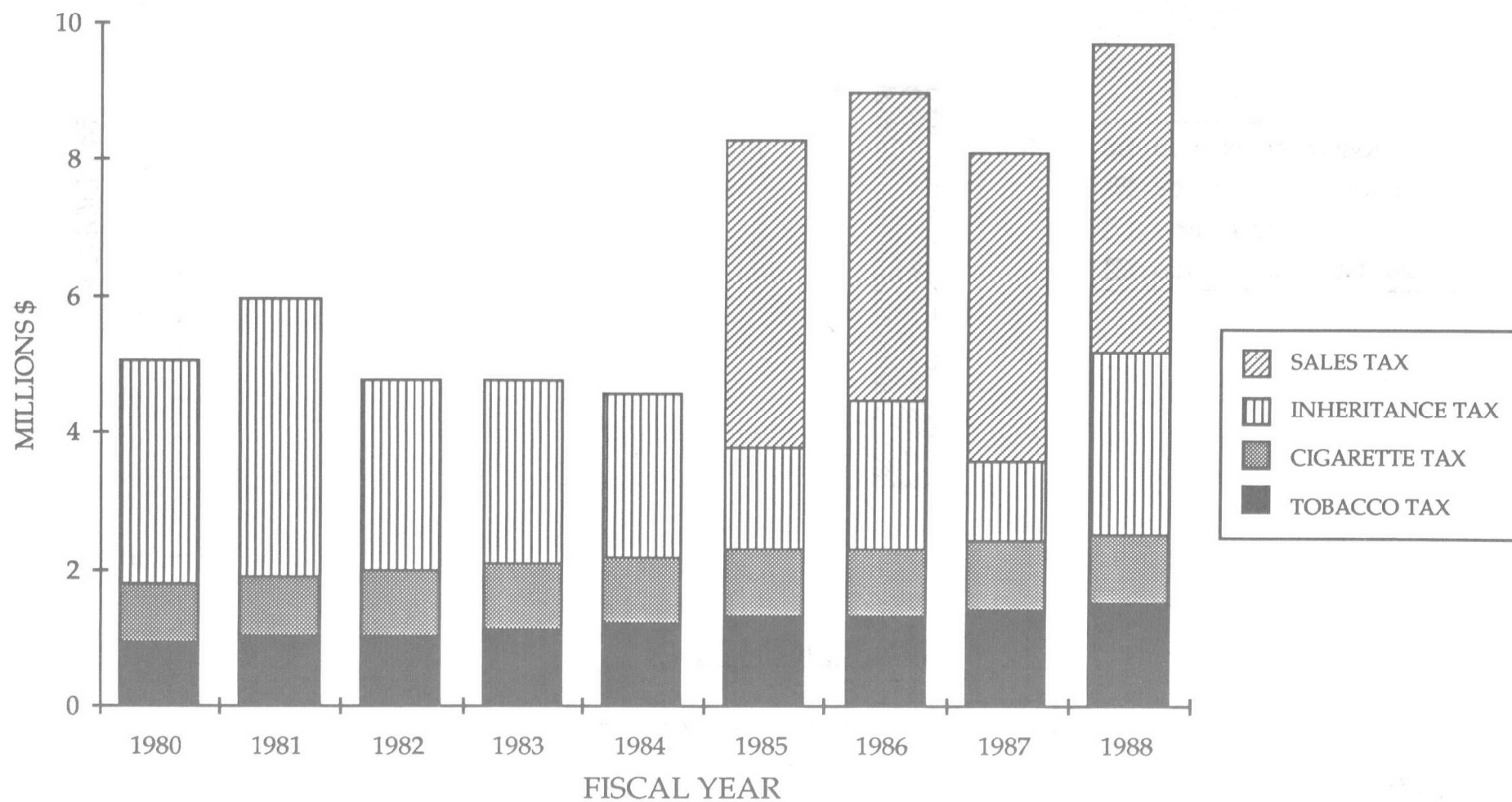
NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

FINAL NJPDES PERMITS ISSUED 1982-1987

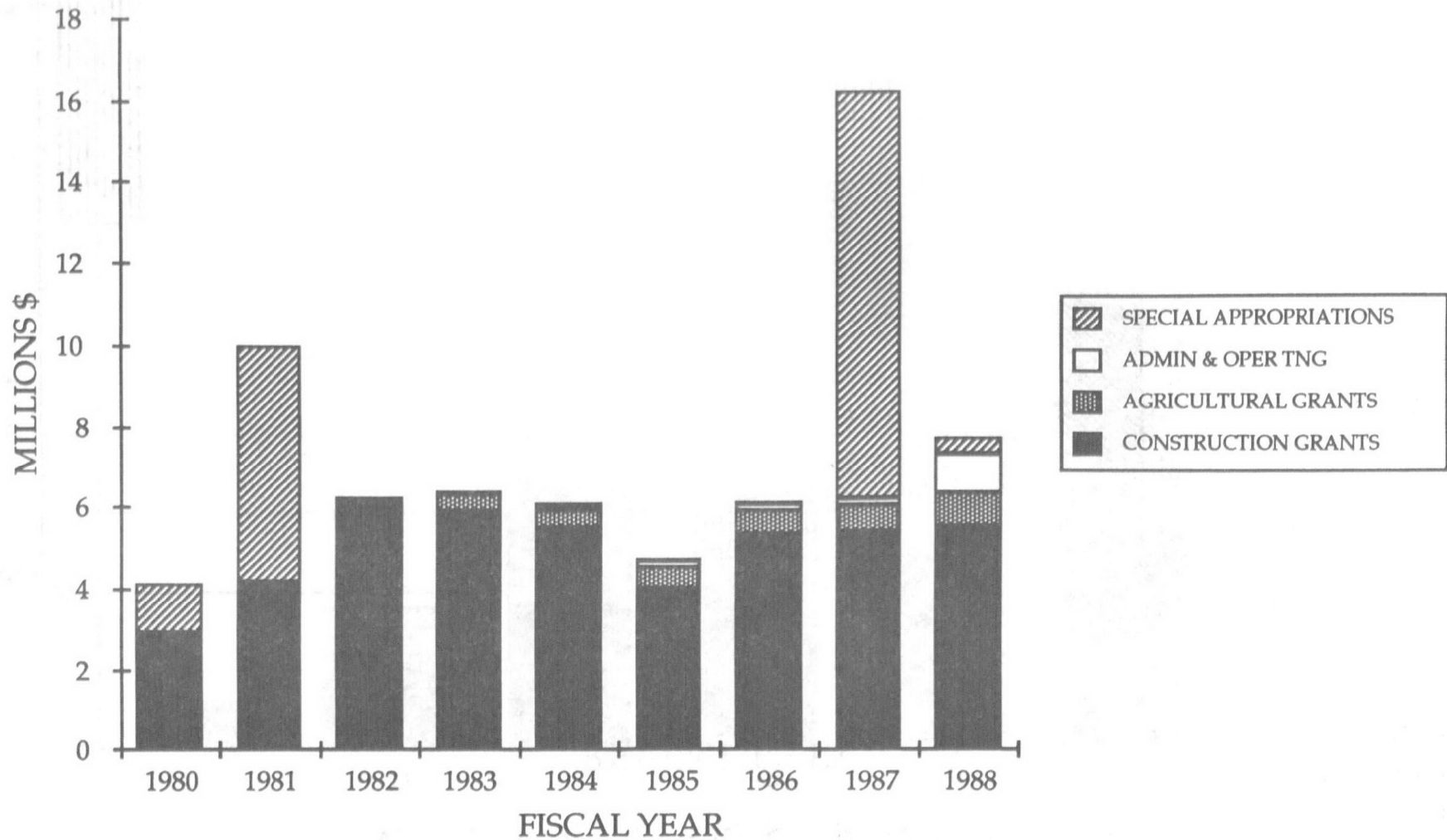


IDAHO
WATER POLLUTION CONTROL ACCOUNT

REVENUES FY 80-88



IDAHO
WATER POLLUTION CONTROL ACCOUNT
EXPENDITURES



Appendix E

**AWWA Recommended Funding Sources for
Main Drinking Water Functions**

General Fund Taxes Enforcement
Regulatory Development
Data Management
Program Management
Public Education

Special Use Taxes Survey and Inspection
Training and Assistance
Enforcement Correction
Plan Review

Fees Laboratory
Permitting
Plan Review
Certification
Training

**Vermont:
Environmental Infrastructure Financing**

A. ASSISTANCE PROGRAMS

Pollution Control
Water Supply
Solid Waste
Dam Maintenance

Aquatic Nuisance Control
Underground Storage Tanks
Hazardous Waste

B. Total Estimated Need \$481 Million

C. Current Rate of Progress Too Slow

D. Federal Financial Support Declining

E. Anticipated State Capital Appropriations
Don't Allow Program Acceleration

F. Annual State Capital Bonding Limited to
90 Percent of Bonds Retired That Year

Appendix F Vermont Estimated Environmental Financial Assistance Need

Page 2

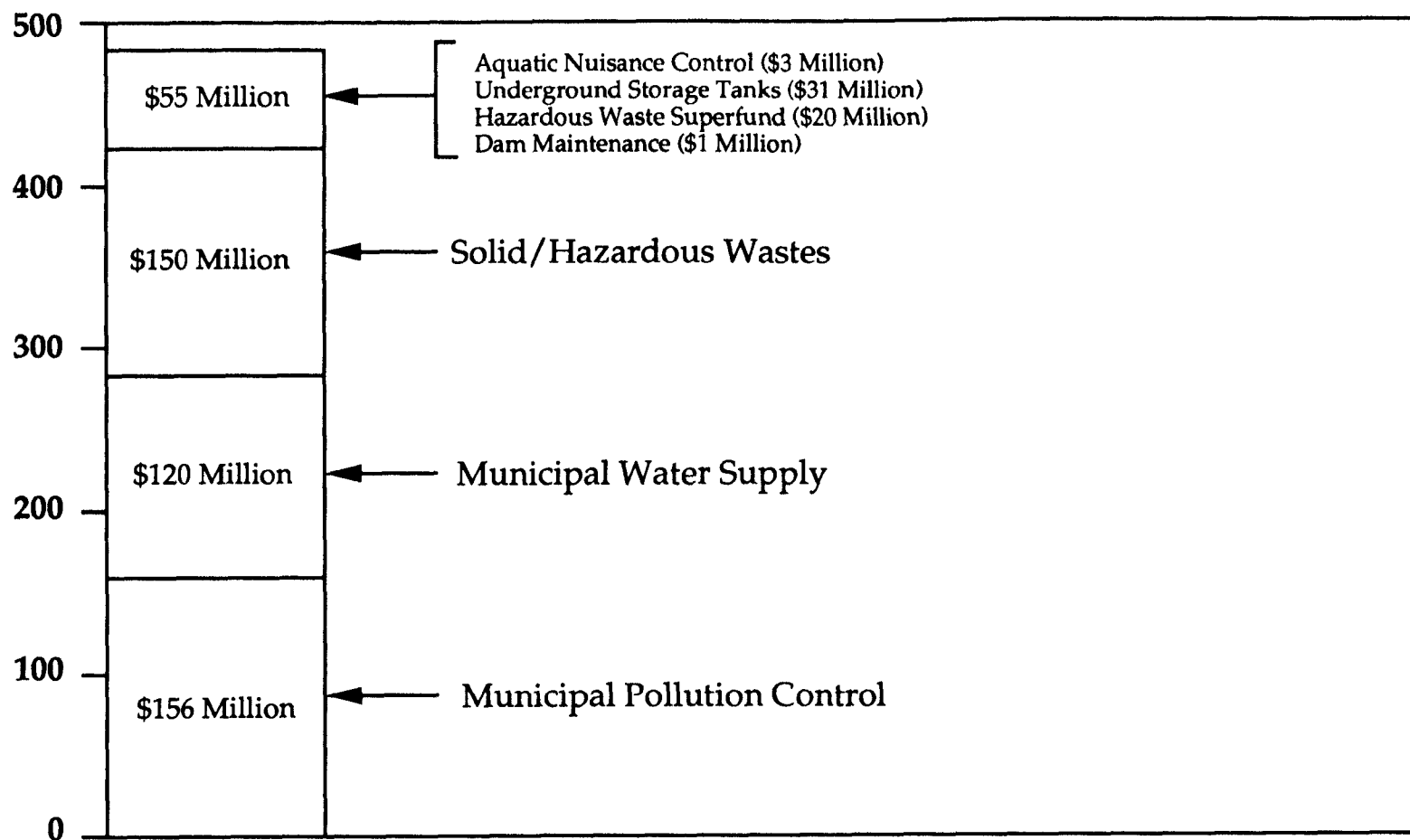
PROGRAM DESCRIPTION	NATURE OF ASST.	AUTHORITY	ESTIMATED NEED
MUNICIPAL WASTEWATER TREATMENT PROJECTS			
Engineering	Interest Free Loans/ Conv. to Grant	10 VSA 1593	
Treatment Facilities	35% Grants or 100% Loans	10 VSA 1625 24 VSA 4754	\$ 36.0 Million
CSO Projects	50% Loans/25% Grants	10 VSA 1624 24 VSA 4754	\$120.0 Million
Job Zone Projects	50% Loans/50% Grants	10 VSA 1625	
MUNICIPAL WATER SUPPLY FACILITIES			
Engineering	Interest Free Loans/ Conv. to Grants	10 VSA 1593	
Treatment/Trans.	35% Grants or 100% Loans	10 VSA 1624 24 VSA 4754	\$120.0 Million
SOLID WASTE MANAGEMENT			
Regional Planning/Eng.	100% Grants	10 VSA 6603b	\$ 12.0 Million
Minor Munic. Facilities	40% Grants or 100% Grants	10 VSA 6603c 10 VSA 6603f 24 VSA 4754	\$ 10.0 Million
Major Munic. Facilities	100% Loans	10 VSA 6603c	\$ 80.0 Million
Closures	100% Grants	10 VSA 6618	\$ 38.0 Million
Recycle/Waste Reduction	100% State effort	10 VSA 6618	\$ 10.0 Million
AQUATIC NUISANCE CONTROL			
Municipal Assistance	25% Grants	10 VSA 922	\$ 0.2 Million
State Projects	50% State Effort	10 VSA 922 CWA 314	\$ 2.8 Million
UNDERGROUND STORAGE TANKS			
Cleanup Projects	100% State after \$10K	10 VSA 1941	\$ 30.0 Million
Replacement Loans	100% Loans	10 VSA 1944	\$ 1.0 Million
Emergency Spill Cleanup	100% State effort	10 VSA 1941	
HAZARDOUS WASTES			
Emergency Spill Cleanup	100% State effort	10 VSA 1283	
Superfund Match	50% non-Fed. Match	CERCLA	\$ 20.0 Million
DAM MAINTENANCE			
Dept. Owned/Flood Control	100% State effort	Agreements w/ Corps. of Eng.	\$ 1.0 Million
TOTAL			\$481.0 Million

**Vermont:
Dedicated Revenue Estimate**

Source of Revenue	Millions
Gas Tax 1 cent/gallon	\$3.0/year
Hazardous Waste Generation	\$0.4/year
Tax 7 cents/gallon or 9 cents/lb.	
Petroleum Tank Assessment	\$0.4/year
\$200/Tank	
Solid Waste Tipping Fee	\$1.5/year
\$2.40/cy or \$6.00/ton	
Transportation Funds	\$0.37/year
Yearly Total	\$ 5.67
10 Year Total	\$56.7 mil

VERMONT

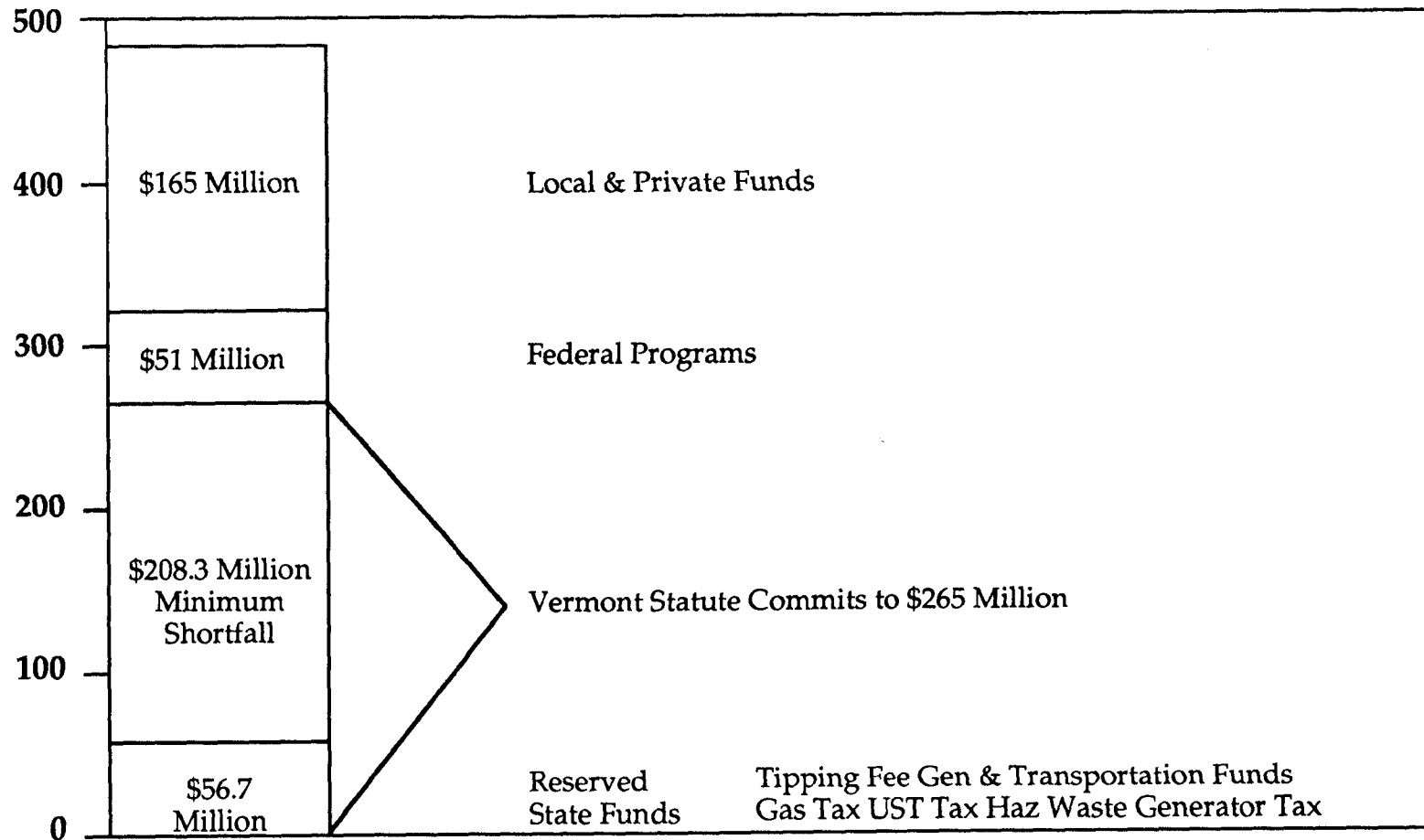
PROJECTED 10 YEAR NEED



Source: Department of Environmental Conservation (12/88)

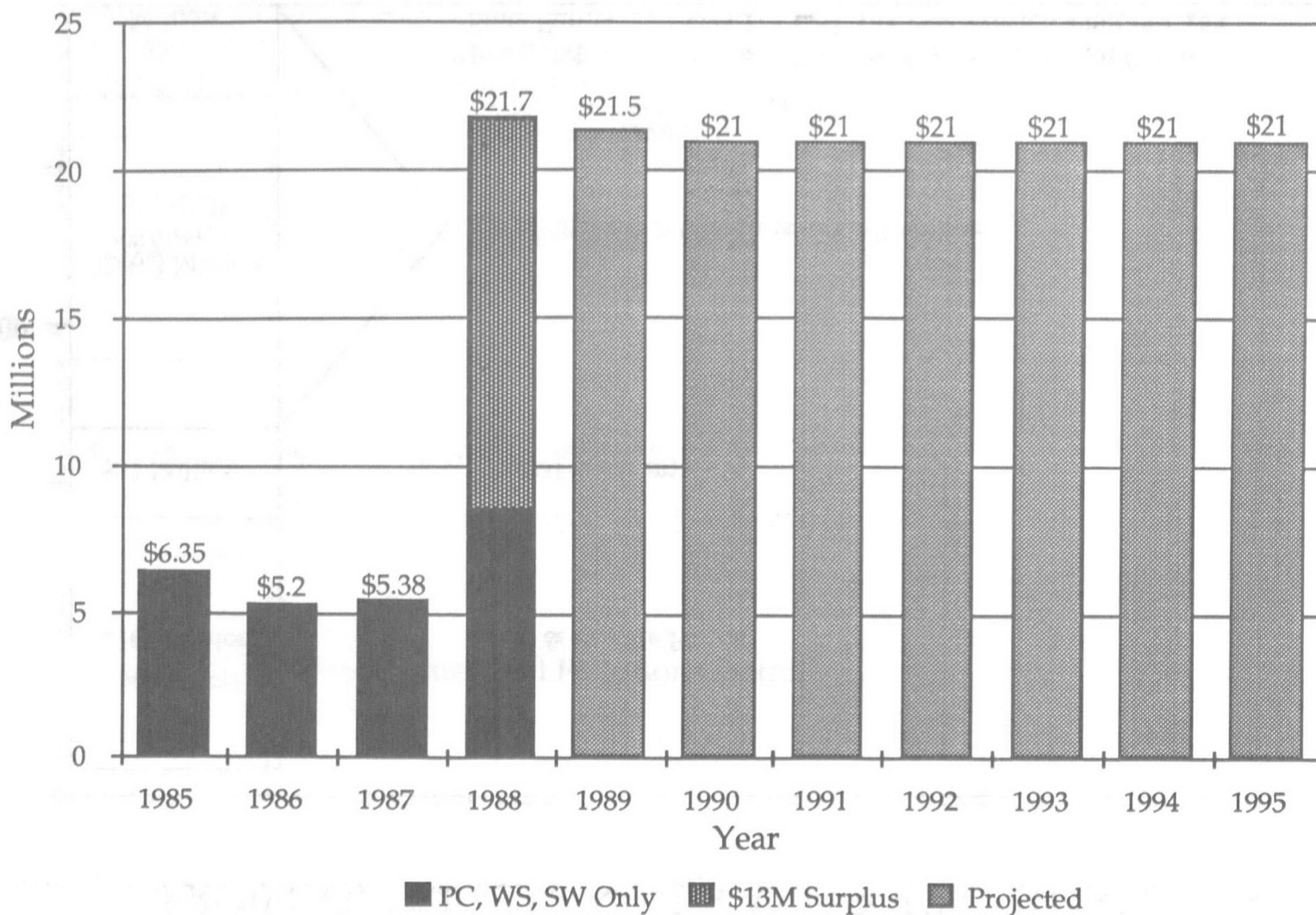
VERMONT

PROJECTED 10 YEAR NEEDS AND SOURCES OF FUNDS



Source: Department of Environmental Conservation (12/88)

VERMONT

PROJECTED CAPITAL APPROPRIATIONS
TO SATISFY 10 YEAR NEED

Source: Department of Environmental Conservation (12/88)

**Rural Community Assistance Programs -
Progress in FY 88 - 89**

RURAL COMMUNITY ASSISTANCE PROGRAMS	NUMBER OF COMMUNITIES	DOLLARS LEVERAGED
Southeast Rural Community Assistance Program	201 communities	\$36.307 million
Rural Community Assistance Corporation	112 communities	\$ 8.2 million
New England Rural Community Assistance Corporation	72 communities	\$ 2.786 million
Midwest Assistance Program	120 communities	\$ 6.634 million
Great Lakes Rural Network	100 communities	\$78.0 million
Community Resource Group	99 communities	\$ 4.0 million

Rural Community Assistance Programs Resources and Assistance for Small Systems

-
- Fairfield, Vermont*** New England RCAP worked with the community on negotiating an agreement with the Vermont Department of Environmental Conservation to perform the preliminary engineering study for their new system. Saving the community between \$15,000 and \$20,000.
-
- Geiger, Alabama*** Community Resources Group (RCAP agency) obtained an agreement from the ChemWaste Corporation to dig the trenches and construct the mounds for Geiger's on-site wastewater system. Firm agreed to donate \$40,000 in labor and equipment toward the completion of this project.
-
- Deer, Arkansas*** Community Resources Group worked with the community on obtaining the services of a local geology professor to perform resistivity tests at no charge. The community was able to drill a well at a depth of 200 feet instead of 2,500 feet. The estimated cost for drilling a well at 200 feet was \$15,000 versus \$150,000 for drilling at 2,500 feet. Saving the community \$135,000.
-
- Mapleton, Oregon*** A 1975 engineering estimate projected the cost for Mapleton's sewer project at \$1.0 million. The community had to forego the project because they could not afford it. Western RCAP engineer provided the community with a second preliminary engineering estimate for a treatment system with a proposed cost \$450,000 - \$500,000. The WRCAP's field agency assisted the community in obtaining the financing for the project with Community Development Block Grant funds and their local share. They will break ground in March, 1989. The cost of Mapleton's wastewater system is \$500,000 less than the original estimate.
-

Appendix G Rural Community Assistance Corporation Cost Savings - At the Local Level

Page 3

Cindy Mann

Community Housing Improvement Program, Western RCAP
Chico, California

Water and wastewater problems in small, unincorporated areas often go unattended due to resource constraints at the local levels of government. Residents who volunteer their time lack the expertise to initiate and maintain ongoing efforts to solve water quality problems. Using technical assistance funds are a cost-effective option that states can use to address public health problems in small, rural communities.

Gerber - A Case Study

Background

Surfacing effluent threatened the health of residents in the low-income community of Gerber in Tehama County, California (population 970). The problem is being addressed through the provision of technical assistance funds for ongoing project development services. The Western Rural Community Assistance program field agency, Community Housing Improvement Program (CHIP) is working with the Gerber-Las Flores Community Services District and Tehama County to: apply for state funding to conduct a pollution study; prepare a facilities plan; develop an environmental impact report, and the plans and specifications for a conventional gravity sewage collection system, treatment plant, and land application system. CHIP prepared all funding applications, acted as a liaison to obtain loan/grant funds, ensured compliance with state and federal regulations, hired engineers and legal counsel as needed, established and maintained record keeping systems for audits, and provided all other assistance critical to the successful implementation of project activities.

In this instance, Gerber is benefitting from these services at little or no cost to the low-income residents. The median income in Gerber is \$11,500. Over the life of a project like Gerber, this translates to a substantial savings to the residents in monthly user fees. This also results in lower costs of the project and makes additional funding available for others.

As part of the Western RCAP network, CHIP is able to provide management and technical assistance at a substantially lower cost than for-profit firms. Rural Community Assistance Corporation (RCAC) provided funds and assistance through the Western RCAP to CHIP for this project. From 1985 through 1988, CHIP has received \$21,600

in funding to provide technical assistance in Gerber. CHIP services cost \$20 per hour, plus travel. In comparison, the fee a consulting firm would charge the community may range from \$45 per hour to \$75 per hour.

At the billed rate of \$20 per hour, the 1,078 total hours of CHIP's services resulted in a savings of nearly \$59,291. The following figures explain how this savings is computed.

1985	\$ 7,459 State Facilities and Technical Assistance Funds
1985	3,000 RCAC's Western RCAP Funds
1986	6,600 California Rural Development Assistance Program Fund
1986	2,000 RCAC's Western RCAP Funds
1987	2,500 RCAC's Western RCAP Funds
TOTAL	\$21,559

$\$21,599 \text{ divided by } \$20/\text{hr} = 1,080 \text{ hours CHIP Services}$

$1,078 \text{ hrs} \times \$75/\text{hr} = \$80,850 \text{ private consulting fee minus } \$21,559$
(CHIP's fee) equals a

TOTAL SAVINGS to date of \$59,291.

CHIP anticipates that there will be an additional \$40,000 saved in the construction phase for a total project savings of \$99,291.

Appendix G **Rural Community Assistance Program Agencies**

Page 4

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Self-Help Partnership

The Rensselaerville Institute

NYS Department of State

NYS Department of Health

NYS Department of Environmental Conservation

The Ford Foundation

Self-Help

- **Target** - Small communities (<1000)
- **Requirements** - Local initiative and determination
- **Method** - Guidance to locals (technical/managerial)
- **Goal** - Cost savings (at least 30%)
- **Result** - Makes projects possible
- **Benefits** - Community pride
 - Enhanced state/local relationship

INTER-AGENCY PARTNERSHIP

A TOOL / NOT A PROGRAM

COUNTS ON PERSON - "SPARK PLUG"

- In the Bureaucracy

- Locally

LOCAL OWNERSHIP OF PROBLEM / LOCAL SOLUTIONS

SAVES MONEY / MAKES SOLUTIONS POSSIBLE

OVERWHELMING PROBLEMS BECOME OPPORTUNITIES

NYS Self-Help Support System Chronology of Implementation

<i>Spring 1984</i>	Workshop introduces concept
<i>Fall 1984</i>	2-day workshop to develop implementation strategy
<i>Late Fall 1984</i>	Commissioners commit to concept
<i>Winter 1985</i>	Pilot projects selected
<i>Spring 1985</i>	Pilot project in work plan Workshops for field staff
<i>Fall 1985</i>	Prop. to Ford Foundation 2nd round workshops for field staff
<i>Spring 1986</i>	Ford loan to TRI 2-day workshop with program directors Self-Help in work plan (1 person yr.)
<i>Summer 1986</i>	Presentation to EPA
<i>Fall 1986</i>	Loan Review Committee formed
<i>Summer 1987</i>	Construction starts on Pilot Project
<i>Fall 1987</i>	Regional workshops Program staff doubled from 1 to 2
<i>Spring 1988</i>	Program staff increased to 10

Central Office: (7 filled before budget freeze)
Section Chief
3 Engineers
Environmental Specialist
Senior Account Clerk
Keyboard Specialist

Regional Staff:
1 each in Regions 5, 6 & 8

**Hamlet of Seward, New York
Cost Savings Techniques: Planning**

ITEM	TECHNIQUE	COST
Sanitary Survey	County Health	-0-
Soils Testing	County Backhoe SCS Geologist	-0-
Treatment Alternatives	DEC/Sewer Committee	-0-
District Boundaries	Tax Maps	-0-
Surveying	Resident	-0-
Environmental Assessment	Local Official W/DEC	-0-
Archaeology	Local Professor	\$300
Sewer District Formation	Residents Petition; Attorney Review	\$500

**Hamlet of Seward, New York
Cost Savings Techniques: Design**

ITEM	TECHNIQUE	COST
Engineering Report	Engineer - 4 pages	\$2,500
Design and Plans	Engineer	\$4,500
Materials List	Residents Prepared	-0-
User Charge System and Sewer Use Ordinance	Local Official w/DEC	-0-
Easements	Residents Generic Easement	\$ 100
Treatment Site	Land Donated	-0-

Hamlet of Seward, New York
Cost Savings Techniques: Construction

ITEM	TECHNIQUE	COST
Access Road	Highway Crew	\$ 500
Pipe Bedding Sand	Town Highway Crew Hauled	\$ 250
Sand and Gravel	Bid; Handled by County Truck	\$ 6,000b
Construction Materials	Comparison Shop Bid	\$32,084b
Construction Equipment	Town Gradeall Purchased Backhoe Bulldozer Donated by Local Official	\$12,800
Construction	Town Crew, Engineer Trains	a
Highway Crossing	DOT Assistance	a
Lawn Restoration	Residents	-0-
Recordingkeeping	Local Official	-0-

a Final Cost Unknown - Project Under Construction

b Cost to Date - Final Cost Unknown

Financing the Seward Project

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PROJECT COST: \$165,000

SYSTEMS USERS: 44

Short Term Financing:

State Grant - \$ 60,000

Self-Help Loan - 100,000, 3 yrs. @ 0.5%

BAN's - 5,000, 3 yrs. @ 5.0%

Long Term Financing:

Balance - Bonds @ 8% for 20 yrs.

or

SRF @ 5.33% for 20 yrs.

1985 Construction Grants Estimate: \$530,000

1987/88 Self-Help Project:

Planning	\$ 800
Design	7,000
Construction	157,000
TOTAL	\$165,000

- Begins prior to beneficial use
-

- Years 1 thru 3:

$$\frac{\$9,150}{44} = \$208/\text{yr}/\text{user}$$

- Estimated balance to bonds: \$79,620
-

- Years 4 thru 24:

Bonds (8%)	$\frac{\$9,555}{44} = \$217/\text{yr}/\text{user}$
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SRF (5.33%)	$\frac{\$7,429}{44} = \$169/\text{yr}/\text{user}$
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Appendix H **Total User Charges**

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O & M cost estimate:

$$\frac{\$1,433}{44} = \$33/\text{yr}/\text{home}$$

Year 1 (capital only)	\$208/yr/user
Years 2 & 3	\$241/yr/user
Years 4 thru 24	\$250/yr/user (bonds) or \$202/yr/user (SRF)

Traditional financing:

(no grants or loans)

\$1,250/yr/user

"I never thought I could trust or respect a DEC representative, but after the Self-Help experience, I'm grateful to that person. I didn't get a dime of money, but I did get assistance encouraging me to work harder for my community."

Carl Barbic

Supervisor

Town of Seward