NBP-91-71

Financing Volume I: An Inventory of Funding Sources for Cleanup and Maintenance of Narragansett Bay and Potential Funding Sources for a Statewide Water Quality Monitoring Program in Narragansett Bay 173 pp

Apogee Research

Narragansett Bay Estuary Program

Crescent Report

The Narragansett Bay Project

FINANCING VOLUME I

Prepared by:

Apogee Research
Bethesda, Maryland
January, 1990

- Inventory of Funding Sources for Cleanup and Maintenance of the Narragansett Bay

- Potential Funding Sources for a Statewide Water Quality Monitoring Program in Rhode Island

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The Narragansett Bay Project is sponsored by the U.S. Environmental Protection Agency and the R.I. Department of Environmental Management.

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FOREWORD

The United States Congress created the National Estuary Program in 1984, citing its concern for the "health and ecological integrity" of the nation's estuaries and estuarine resources. Narragansett Bay was selected for inclusion in the National Estuary Program in 1984 , and the Narragansett Bay Project (NBP) was established in 1985. Narragansett Bay was designated an "estuary of national significance" in 1988. Under the joint sponsorship of the U.S. Environmental Protection Agency and the Rhode Island Department of Environmental Management, the NBP's mandate is to direct a program of research and planning focussed on managing Narragansett Bay and its resources for future generations.

The NBP will develop a draft Comprehensive Conservation and Management Plan (CCMP) by December, 1991, which will recommend actions to improve and protect the Bay and its natural resources.

The NBP has established the following seven priority issues for Narragansett Bay:

- management of fisheries
- nutrients and potential for eutrophication
- impacts of toxic contaminants
- health and abundance of living resources
- health risk to consumers of contaminated seafood
- land-based impacts on water quality
- recreational uses

The NBP is taking an ecosystem/watershed approach to address these problems and has funded research that will help to improve our understanding of various aspects of these priority problems. The Project is also working to expand and coordinate existing programs among federal, state and local agencies, as well as with academic researchers, in order to apply research findings to the practical needs of managing the Bay and improving the environmental quality of its watershed.

This report represents the results of investigations funded by the United States Environmental Protection Agency under Contract # 68-03-3514; Sub-Contract # 3514-05 with Apogee Research. **These results are preliminary and are presented to the reader in their draft format. This report has not undergone the Agency's and the NBP's peer and administrative review. The results and conclusions contained herein are those of the author(s), and do not necessarily represent the views or recommendations of the NBP. The interested reader is encouraged to investigate additional sources of information and should not necessarily consider these investigations comprehensive syntheses of the existing data on the subjects.** Apogee Research performed five (5) investigations, which are available through the Narragansett Bay Project in two volumes: NBP-91-71 and NBP-91-72.

INVENTORY OF FUNDING SOURCES FOR CLEANUP AND MAINTENANCE OF THE NARRAGANSETT BAY

INTRODUCTION

In conjunction with the United States Congress's designation of the Narragansett Bay as an Estuary of National Significance within the National Estuary Program, the Narragansett Bay Project was established and charged with the responsibility for developing a Comprehensive Conservation and Management Plan (CCMP) for restoration and maintenance of the Bay. Once completed, the CCMP will inform decisions about specific restoration and maintenance activities to be undertaken, at which point funding needs can be estimated and revenue sources determined. Concurrent with the planning and development of technical initiatives, however, it is useful to consider existing and potential funding sources for these needs to ensure that revenues will match needs. In the hope that suitable financing choices may result, this document examines existing and potential funding sources at Federal, state, and local government levels in anticipation of the estuary restoration and protection strategies likely to emerge from the current planning process.

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TAXES AND FEES TO SUPPORT ESTUARY PROGRAMS

Estuary cleanup and protection initiatives can use taxes and fees to support their programs in two ways. First, they can be used to finance operating programs on a "pay-as-you-go" basis, with annual administrative costs balanced by dedicated annual tax receipts or fee revenues. Second, taxes and fees can support the financing of capital projects if they are pledged to repay the principal and interest on tax-exempt bonds or bank loans/.

Designing the exact mix and timing of taxes and fees to finance estuary protection initiatives centers around concerns for equitable cost sharing, efficient collection of funds, and political acceptability. Generally, program managers will want to consider the following five questions when choosing among the tax/fee options:

Who should pay for estuary cleanup/protection?

Will revenues be adequate for their intended uses over time?

Will revenues be stable and predictable from year to year?

Are the costs of administration prohibitive?

Are incentive to change behavior as important as raising revenues?

Who pays affects political acceptability and fairness. Fairness is usually measured by how closely the distribution of costs reflects the distribution of benefits or the distribution of the incidence of contamination. A chief concern of taxes is their progressivity, or their tendency to impose costs on residents in proportion to their income. Overall, regressive tax proposals -- those that affect low-income groups disproportionately -- are less acceptable than progressive taxes.

The adequacy of revenues over time addresses the functional efficiency of a tax/fee proposal. If revenues fall short of projections, for example, programs could be suspended and benefits lost.

The stability and predictability of revenues is important both for efficiency and for political acceptability. Taxes are generally predictable -- total tax receipts can be forecast with reasonable certainty -- but they are not necessarily a stable source of funds for Estuarine Protection Programs. Programs can be designed to avoid the potential interruption of funds that sometimes accompanies the annual appropriations process. This can be done by securing tax or fee revenues dedicated to their programs or by establishing distinct institutions -- special stormwater management districts, for example -- with authority to levy taxes or collect fees.

The costs of administration are important to ensure that tax/fee-based financing is operationally efficient. It makes little sense, of course, to spend more to administer a tax/fee program than is taken in as program revenues. The key to an efficiently run program is often

good planning. All the costs of program administration, not simply the direct staff costs, should be balanced against projected revenue streams.

Incentives to change behavior, particularly changes that reduce polluting activities, can be as important as raising revenues in setting tax/fee structures. Performance-based fees, those that charge on a sliding scale depending on the quantity or toxicity of discharge, can be particularly effective in reducing discharges. Of course, revenues should be expected to decline if such a program is successful.

TAXES

The principal taxes levied by most governments are ad valorem and personal property taxes, sales taxes, and income taxes. Income, sales, and personal property taxes comprise the principal source of revenue for most state governments. Under ad valorem taxes, real estate owners pay a tax based on the assessed value of their property. Examples of such financing systems include:

- The South Florida Water Management District finances water use permits, recharge programs, drought contingency planning, and ground-water production, as well as surface water controls, from an ad valorem tax.

- The County of Suffolk, New York sets aside, in a dedicated account, a portion of its sales tax receipts equal to 0.25 percent of the value of all taxable goods and services exchanged in the County. Currently, this account assists financially ailing sewer systems, but the County plans to redirect these tax receipts to land acquisition.

- The County of Spokane, Washington dedicates a portion of its sales tax receipts equal to 0.25 percent of the value of taxable goods and services to the development of interceptor sewers and treatment facilities, monitoring programs, and provision of services in a special protection area.

- The County of Collier, Florida; the Edwards Underground Water Conservation District, Texas; and the Town of Littleton, Massachusetts all use or propose to use general revenues derived from a variety of property and sales taxes to finance performance control programs in Wellhead Protection Areas.

Taxes are best suited to activities that create benefits which are widely distributed and difficult to apportion among individuals or groups of users. The common forms of taxes are usually cost effective to administer, widely accepted, and have potentially high revenue yield. Income and ad valorem taxes are more progressive than sales and personal property taxes. The assignment of tax revenues to estuary protection programs is subject to the competitive pressures within state and local budget processes. Hence, while tax revenues are predictable, they should

be viewed as somewhat unstable. While some state or local governments do not make it a common practice, one way to enhance the stability of taxes is to dedicate them to estuary programs.

Broad-based taxes on income, sales, or property generally offer weak incentives to modify behavior. Instead, they are designed to raise a reliable stream of revenues intentionally free from targeting a single activity or narrow group within the community.

STATE TAXES IN RHODE ISLAND

Table 1 lists, in descending order of magnitude by 1988 revenues, all taxes collected by the Rhode Island Department of Administration, the major administrator of taxes in the state, as well as several taxes collected by other departments.

Tax Increases

Recent initiatives to enhance state revenues during the General Assembly's FY89 legislative session resulted in several taxes being raised or the base upon which they are levied being expanded. These tax changes are displayed in Table 1.

TABLE 1

RHODE ISLAND STATE TAXES			
TAX	RATE[1]	FY 88 COLLECTION	FY 89 COLLECTION
Personal Income Tax	22.96% of Federal Income Tax	388,646,738	422,254,810
Sales and Use Tax	6% of sales and use	381,200,523	390,951,192
Corporation Tax	8% of Federal Income Tax	66,649,532	57,258,711
Public Utilities - Gross Earnings Tax	Electric: 4% Gas: 3%	54,113,382	49,916,975
Gasoline Tax	13¢ per gallon	45,427,234	41,832,216
Cigarette Tax	27¢ per pack	33,524,833	31,732,079
Insurance Companies	2% of net premiums	30,361,542	32,821,300
Inheritance Tax	2-9% of estate (progressive)	21,972,540	19,388,318
Financial Institutions Tax	8% of Federal Income Tax	14,026,996	20,142,048
Public Service Corporation Tax ("Telephone Tax")	6% of local and intra-state long distance charges	10,933,612	10,325,401
Dog Racing Tax	5% of mutuel pools 1/2 of breakage	10,700,525	9,571,413

[1]As discussed, some of the rates listed in this table have been changed. The rate described is that which was in effect during FY89.

TABLE 1 continued

RHODE ISLAND STATE TAXES			
TAX	RATE	FY 88 COLLECTION	FY 89 COLLECTION
Motor Fuel Excise Tax	2¢ per gallon	9,335,869	9,289,740
Banking Institution Tax on Deposits	Increases with deposit size; Higher for Banks than Credit Unions	8,021,443	8,589,587
Alcoholic Beverage Import Fees	Per gallon: Spirits: $2.50 Sparkling wine: 50¢ Distilled wine: 40¢ Beer: 6.5¢	7,746,945	7,311,472
Realty Transfer Tax	.22% of sales price	6,678,124	5,892,620
Jai-Alai Tax	5% of mutuel pools; 1/2 of breakage	1,619,500	874,905
Hotel Tax	4% of gross lodging charges	1,510,373	1,639,849
Franchise Tax	$2.50 per $10,000 authorized capital	1,584,751	1,813,343
Beverage Container Tax and Litter Control Participation Permit	Beverages: 4¢ per case; Litter control fee: varies, based on gross receipts of any business selling food for immediate consumption	950,145	1,382,564
Fuel Use - Motor Carriers	15¢ per gallon	813,670	418,911
Admissions Tax - Racing Events	20% of admission price	146,781	182,817
Tax on Manufacturers of Beers, Liquors, etc.	Per gallon: Spirits: $2.50 Sparkling wine: 50¢ Distilled wine: 40¢ Beer: 6.5¢	8,314	13,479

Several of the taxes listed in Table 1 have recently been raised by the Rhode Island General Assembly. The following new rates became effective at various points during FY90 and thus the impact on annual collections is as yet unknown.

TABLE 2

RHODE ISLAND STATE TAXES: NEW TAX RATES EFFECTIVE JANUARY 1, 1990		
TAX	NEW RATE	CHANGE
Gasoline Tax	18¢ per gallon	+ 5¢
Cigarette Tax	37¢ per pack	+ 10¢
Alcoholic Beverage Import Fees	Per gallon: Spirits: $3.75 Sparkling wine: 75¢ Distilled wine: 60¢ Beer: 9.75¢	+ 50%
Tax on Manufacturers of Beers, Liquors, etc.	Per gallon: Spirits: $3.75 Sparkling wine: 75¢ Distilled wine: 60¢ Beer: 9.75¢	+ 50%
Realty Transfer Tax	.28% of contract sales price (= $2.80 per $1000)	+ 60¢ per $1000
Hotel Tax	5% of gross lodging charges	+ 25%
Sales and Use Tax Base	Expanded to include long distance phone charges, formerly exempt	NA

With the exception of the Realty Transfer Tax, the increase from which goes into the state's municipal Revenue Sharing program, all of the increases in Table 2 flow to the General Fund for subsequent appropriation. The Governor's proposed FY91 Budget is due in February, at which point proposals for new taxes and tax increases will start to appear in the Legislature. At this writing, no such proposals are under discussion.

Dedication of State Taxes

Up to this point, dedication of taxes in Rhode Island has proven politically difficult if not impossible to achieve. According to a contact in the Department of Administration's Budget

Division, there has been a strong sense among the state's Executive and Legislative branches that the freedom to establish budget priorities must be preserved, and that encumbering this prerogative with revenue dedication is a dangerous precedent. Consequently, nearly all state taxes in Rhode Island benefit the general fund. The major exceptions to this rule are as follows:

- The Gasoline Tax, currently 15¢ per gallon, of which 2¢ is pledged to support the Rhode Island Public Transit Authority. However, amounts unspent by the latter at the end of the year revert to the General Fund.

- The Hotel Tax, currently set at 5% of gross lodging charges, which benefits the Department of Economic Development (15%), the Regional Tourism District (50%) and the municipality (25%) in which the hotel is located, and Roger Williams Park (10%).

- The Tax on Beverage Containers, 4¢ per case of beverages and $125 per $1,000,000 of gross receipts of any firm selling take out comestible items. This revenue is divided evenly between the state's recycling and litter control programs.

- The Realty Transfer Tax, currently $2.80 per $1000 sales price, of which 50¢ is retained by the municipality recording the sale and 60¢ (the entire amount of a new rate hike) is redistributed among municipalities by means of the state's Revenue Sharing formula, with the balance going into the general fund. This is more accurately considered a pass-through tax than a dedicated tax.

- The Public Service Corporation Tax, also called the "Telephone Tax", currently 6% of local and in-state long distance service charges. This is also a pass-through tax, collected by the state and returned to the municipality in which it was incurred.

There is some indication that the Executive and Legislature are slightly more receptive to dedicating new taxes today than they have formerly been, particularly for environmental purposes. During the July 1989 legislative session a bill was passed establishing a new "Hard to Dispose Of Materials" tax[2] to be levied upon sales by wholesalers to retailers of specific items as follows:

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[2]This tax was authorized under the same law creating the Beverage Container and Litter Control Tax.

TABLE 3

"HARD TO DISPOSE OF MATERIALS" TAX	
Motor Oils	5¢ per quart
Organic Solvents	.25¢ per gallon
Anti-freezes	10¢ per gallon
Tires	50¢ each
Automobiles	$3.00 each

Proceeds from this tax go entirely to the Department of Environmental Management to fund a number of interests bearing on the disposal problems associated with these items, including household hazardous waste reduction, used oil recycling, solid waste data monitoring, research into tire recycling, and some related grants. Because this tax went into effect on January 1, 1990, and the first returns from its collection are not due until February 25, it is not yet known how much revenue it will generate; original projections were for $2.6 million annually.[3]

Applicability to Estuary Project Finance

The success in the passage of this tax may constitute a good precedent for raising money for estuary-related programs through dedicated state taxes if applicable ones can be found or proposed. One possibility may be to increase the Hotel Tax, currently 5% to 6% and dedicating the incremental revenue ($410,000, assuming inelastic demand and no change in prevailing lodging prices) to an estuary purpose on the grounds that tourism should contribute to the support of Bay maintenance efforts. An additional possibility may be to extend the Sales and Use Tax base to sewer charges, currently exempt, or develop a substitute but equivalent-cost tax and dedicate its revenues to estuary projects. In recent years, Rhode Island's Sales and Use Tax base was extended to include Cable TV charges, thus establishing precedent for including services among taxable activities.

Revenue Sharing to Redistribute Tax Revenues

[3]In the context of the State's current budget crisis, there has been some legislative discussion that revenues from this tax might be redirected to reduce the budget shortfall, a shift which would necessitate rewriting the portion of the law which restricts its receipts to DEM's uses. However, given the crucial support of affected industries for this tax during its passage, provided on the understanding that its proceeds would be used in ways ultimately beneficial to them, it likely that the resulting political damage from garnishing the proceeds will outweigh the small budgetary remedy it would provide.

Formerly, a number of state taxes were redistributed among Rhode Island cities and towns on the basis of formulas appropriate to the tax in question, such as population or total assessed property value. Were this still the case, revenues to support estuary programs might potentially be raised from selected increases among these state taxes. However, when the federal government ceased its general revenue sharing program, Rhode Island began also to phase out this practice.

In its place, the state adopted a more generous system of annual appropriations for cities and towns. The total pool to be redistributed is linked to a percentage of sales and income tax collections, and allocation is calculated by means of a complex formula including population, per capital income, and the size of tax effort devoted to non-educational purposes. Table 4 shows the amounts of revenue sharing aid, ranked by size, received by Rhode Island cities and towns in FY88 and FY89.

Indicative of the tight budgetary climate currently facing Rhode Island (a budget deficit of $100 million is forecast), a proposal to cut the FY90 Revenue Sharing pool by $11.2 million (28%) is expected to receive serious legislative consideration in time for the traditional March 31 distribution of monies. As presently written, the proposal would not affect the relative distributions received by municipalities, but would occur as a 28% reduction for each.

TABLE 4

1988 RHODE ISLAND REVENUE SHARING AID RECEIPTS		
New Shoreham	$52,033	$42,564
Exeter	63,257	63,255
Little Compton	89,999	60,249
West Greenwich	96,644	72,260
Richmond	117,863	91,061
Foster	129,500	136,401
Jamestown	148,883	151,043
Glocester	172,505	195,146
Charlestown	173,294	216,544
Hopkinton	189,642	168,099
Tiverton	219,911	277,020
Scituate	268,145	250,861
Middletown	286,865	316,068
North Smithfield	381,069	327,802
East Greenwich	407,302	154,904
Westerly	413,309	431,631
Warren	435,619	370,671
Barrington	457,596	357,576
Narragansett	500,942	471,405
Burrillville	504,733	526,571

TABLE 4 continued

1988 RHODE ISLAND REVENUE SHARING AID RECEIPTS		
Portsmouth	$504,985	$282,940
Lincoln	542,224	389,415
Coventry	603,903	623,310
Smithfield	605,413	764,487
Bristol	617,686	665,543
Cumberland	633,606	514,950
North Kingstown	722,134	558,672
South Kingstown	793,810	634,000
Central Falls	823,290	953,764
North Providence	921,370	984,228
West Warwick	928,735	960,490
Newport	1,114,063	1,192,534
Johnston	1,165,190	1,314,519
East Providence	1,984,673	1,944,509
Woonsocket	2,336,498	2,427,255
Cranston	2,440,062	2,486,497
Warwick	3,493,359	3,566,228
Pawtucket	3,578,071	3,909,935
Providence	8,301,134	8,803,973

LOCAL TAXES IN RHODE ISLAND

Local governments in Rhode Island receive their authority to tax from the State Legislature. The chief tax levied by local governments, constituting their primary source of revenue, is the property tax. Also known as an ad valorem tax, the property tax in Rhode Island is levied on real property, motor vehicles, and tangible personal property. Property tax rates are locally established, although ceilings on rates and on the size of annual increases are set by the Legislature. The real estate base upon which property taxes are computed is established by local custom. Motor vehicle and personal property tax bases are established by individual declaration of assets.

The question of whether or not local property taxes can be raised or tapped as funding sources for estuary cleanup initiatives is ultimately a political matter and beyond the scope of this study, but insight into relative tax levels can be useful when considering equity and affordability issues. In their nominal (or statutory) form, local property tax rates cannot be meaningfully compared. They must first be converted to actual (or effective) rates, which is done by adjusting to control for two factors which obscure true tax levels:

- **Percentage of property's assessed value upon which taxes are levied.** Municipalities vary considerably in the proportion of a property's total assessed value upon which they levy property taxes. Among Rhode Island cities and towns, this percentage ranges from 50% to 100%.

- **Ratio of assessment.** It is almost universally true that assessed values diverge from market values. Yet the extent of this divergence varies according to local practices.

The Department of Administration attempts annually to "level the playing field" among municipalities competing for certain types of state aid which get allocated on the basis of total assessed values. Each year it attempts to make uniform local assessments using actual sales data and consistent techniques and thereby control for the above to variations in local assessment practices.

Property Tax Rates

Table 5 presents an alphabetical listing of Rhode Island cities and towns with nominal and actual property tax rates for 1988 and revenue collections for 1987. Table 6 ranks these municipalities in ascending order by nominal and actual tax rate. Note the divergence of the two rankings.

TABLE 5 1988 RHODE ISLAND MUNICIPAL PROPERTY TAX RATES

MUNICIPALITY	NOMINAL TAX RATE	RANK	EFFECTIVE TAX RATE	RANK
Barrington	24.00	26	24.41	7
Bristol	24.32	24	18.94	26
Burrillville	34.90	7	22.92	11
Central Falls	43.90	3	35.58	1
Charlestown	11.38	39	9.48	37
Coventry	30.20	11	21.27	15
Cranston	31.25	10	23.03	10
Cumberland	21.70	31	19.93	22
East Greenwich	21.66	32	21.56	13
East Providence	28.36	16	23.39	9
Exeter	34.80	8	15.79	32
Foster	52.25	1	20.94	17
Glocester	24.99	22	19.35	24
Hopkinton	29.73	13	19.62	23
Jamestown	16.18	36	11.42	36
Johnston	28.00	18	21.35	14
Lincoln	24.77	23	17.81	28
Little Compton	13.75	38	7.58	38
Middletown	25.00	21	14.60	33
Narragansett	20.34	33	13.79	34
New Shoreham	14.12	37	18.88	27
Newport	27.80	19	7.42	39
North Kingstown	24.24	25	19.22	25
North Providence	29.25	15	21.88	12
North Smithfield	30.15	12	20.57	20
Pawtucket	29.72	14	29.62	3
Portsmouth	37.65	6	17.39	29
Providence	23.88	27	29.51	4
Richmond	38.00	5	21.11	16
Scituate	43.00	4	20.26	21
Smithfield	33.05	9	23.89	8
South Kingstown	21.96	30	17.03	30
Tiverton	23.60	28	16.20	31
Warren	23.08	29	20.66	19
Warwick	26.59	20	26.97	5
West Greenwich	46.56	2	11.54	35
West Warwick	28.10	17	20.72	18
Westerly	20.07	34	24.90	6
Woonsocket	18.30	35	31.66	2

TABLE 6

1988 RHODE ISLAND MUNICIPAL PROPERTY TAXES
(IN ASCENDING ORDER)

NOMINAL TAX RATE		EFFECTIVE TAX RATE	
Charlestown	11.38	Newport	7.42
Little Compton	13.75	Little Compton	7.58
New Shoreham	14.12	Charlestown	9.48
Jamestown	16.18	Jamestown	11.42
Woonsocket	18.30	West Greenwich	11.54
Westerly	20.07	Narragansett	13.79
Narragansett	20.34	Middletown	14.60
East Greenwich	21.66	Exeter	15.79
Cumberland	21.70	Tiverton	16.20
South Kingstown	21.96	South Kingstown	17.03
Warren	23.08	Portsmouth	17.39
Tiverton	23.60	Lincoln	17.81
Providence	23.88	New Shoreham	18.88
Barrington	24.00	Bristol	18.94
North Kingstown	24.24	North Kingstown	19.22
Bristol	24.32	Glocester	19.35
Lincoln	24.77	Hopkinton	19.62
Glocester	24.99	Cumberland	19.93
Middletown	25.00	Scituate	20.26
Warwick	26.59	North Smithfield	20.57
Newport	27.80	Warren	20.66
Johnston	28.00	West Warwick	20.72
West Warwick	28.10	Foster	20.94
East Providence	28.36	Richmond	21.11
North Providence	29.25	Coventry	21.27
Pawtucket	29.72	Johnston	21.35
Hopkinton	29.73	East Greenwich	21.56
North Smithfield	30.15	North Providence	21.88
Coventry	30.20	Burrillville	22.92
Cranston	31.25	Cranston	23.03
Smithfield	33.05	East Providence	23.39
Exeter	34.80	Smithfield	23.89
Burrillville	34.80	Barrington	24.41
Portsmouth	37.65	Westerly	24.90
Richmond	38.00	Warwick	26.97
Scituate	43.00	Providence	29.51
Central Falls	43.90	Pawtucket	29.62
West Greenwich	46.56	Woonsocket	31.66
Foster	52.25	Central Falls	35.58

STATE AND LOCAL REAL ESTATE TRANSFER TAXES

Excise taxes, like general taxes, are compulsory and are applied throughout a government's jurisdiction. They are more limited, however, in that they apply only to the sale or exchange of certain goods (commodities) or services. Examples of these targeted taxes abound throughout public finance: real estate transfer taxes; tobacco, liquor, and other "sin" taxes; taxes on hunting and fishing equipment; taxes on automotive or marine fuels; taxes on restaurant and hotel income; severance taxes for minerals.

One of the problems affecting water quality in the Narragansett Bay is nonpoint source pollution. Analyses of nonpoint source pollution often stress the needfor land management strategies to address this issue. Land management strategies usually include regulatory measures and a land acquisition program. Land, development rights, or easement purchases are intended to assure that sensitive land will remain undeveloped in perpetuity in a way that land use controls, being subject to modification or variance, cannot. One way to finance acquisition of land, development rights, or easements is by dedicating the receipts of a property transfer tax to a land trust. A partially dedicated real estate transfer tax has been used successfully in Maryland to finance its Open Space Program for over 20 years. Other examples include:

- The State of Vermont recently passed legislation that doubles its real estate transfer tax to 1 percent. The revenue will be distributed to towns and regional planning commissions to strengthen land use planning and land acquisition.

- In Nantucket, Massachusetts, the proceeds of a local land transfer tax are used for land acquisition. Although the Nantucket Land Bank was developed primarily for shore and estuary protection and restoration, select parcels are acquired for aquifer protection.

- The County of Spokane, Washington relies in part on a transfer tax to finance sewers, treatment works, monitoring, and other activities in a special aquifer protection area.

The State of Rhode Island levies a real estate transfer tax of $2.80 per $1000 of sale price. As discussed above in the section on State Taxes, this tax is collected at the local level. The local collecting entity retains a portion equivalent to 50¢ per $1000 and forwards the balance to the general fund, 60¢ of which gets redistributed through the municipal Revenue Sharing program.

For the most part, local governments in Rhode Island do not charge real estate transfer taxes in addition to the State's real estate transfer tax. There are, however, two exceptions to this rule.

- New Shoreham charges 3% of the property sale price. Proceeds go into a Land Trust to purchase property or development rights.

- Little Compton charges 2% of the property sale price above the first $75,000. These funds are used to purchase agricultural land or its development rights.

The establishment of local real estate transfer taxes requires both local approval, depending on the prevailing form of government, and specific enabling legislation from the Rhode Island General Assembly. The enabling act prescribes the maximum rate which may be charged, 5% in the case of New Shoreham. Local government then chooses a rate within this limit. General Assembly approval hinges on local acceptance of the transfer fee. The Town of Narragansett, for instance, was not granted enabling legislation for a proposed real estate transfer fee it would have used for land conservation due to extreme opposition from local real estate interests.

Revenues from real estate transfer taxes can fluctuate substantially with volume and price level conditions in the real estate market, making them a potentially unstable source of program funding. New Shoreham's tax, for example, currently in its third year, generated $490,000 in its first year but only $285,000 (42% less) in its second year.

FEES

Permit and inspection fees commonly finance all or some portion of the administrative costs of regulatory programs. A permit fee is a one-time fee that charges each applicant an appropriate share of the costs of permit administration. A related fee, the inspection fee, is charged with each inspection to recover the costs of inspection, testing, and monitoring. These types of fees are commonplace in environmental programs:

- Metropolitan Dade County, Florida collects plan review fees for each new development permit. A portion of the proceeds is allocated to the Department of Environmental Resource Management to reimburse its plan review costs. The Department also administers an operating permit program for activities in wellhead protection areas, collecting fees on an annual basis from permittees.

- The Light and Water Department in the Town of Littleton, Massachusetts, conducts semiannual tests of samples from monitoring wells at industrial and commercial facilities. Property owners must reimburse the Light and Water Department for its costs.

- The County of San Bernardino, California; the City of Tacoma, Washington; and the County of Ocean, New Jersey also collect permit fees in association with permits for activities affecting groundwater and surface water.

Permit and inspection fees are generally viewed as fair because they assign the cost of control to potential polluters. Few such systems, however, raise substantial amounts of revenue; most cover much less than the full cost of permit or inspection programs. Like impact fees, permit fees are relatively unstable sources of revenue as they respond to the uneven demands for new facilities from year to year. Inspection fees are more reliable. Both permit and inspection fees can have the effect of improving compliance with performance controls or other types of regulations.

STATE FEES: DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

The Rhode Island Department of Environmental Management (DEM) charges a variety of fees for permits, inspections, and other services it provides. Revenues from some of these are dedicated to program support. Tables 5-9 present a description of all fees collected by DEM, organized by subject area, together with their FY88 revenues.

TABLE 7

BOAT-RELATED FEES

PILOTS LICENSES — 66,078

License fee of $25, valid for five years. Coastal Resources.

OUTBOARD MOTOR REGISTRATION — 50,540

A one-time charge of $5 to register outboard motors on boats.

REGISTRATION OF BOATS — 398,391

Registration fee for all motorboats not exempt from the Rhode Island's boat numbering system. Current annual fees are by boat length:

- Under 16 feet:	$10
- 16-25 feet:	$15
- 26-35 feet:	$25
- 36 feet and over:	$35

Proceeds go into restricted account dedicated to boating safety purposes. A current legislative proposal would (1) raise boat registration fees, (2) require all boats (motorized and non-motorized) to be registered, and (3) exempt boats from local personal property taxes (currently levied by only two towns). Proceeds from this registration fee would be divided equally between the State and the local government in which the boat is registered. The State portion would continue to be used boating safety activities, and local portion would be used both boating safety (25%) and parks and recreation (75%) programs.

RENTALS FOR HARBORS AND RIVERS — 83,595

Annual per-boat rental fee for commercial fishing boats of $15 per foot at all state-owned piers, ports, and docks. These fees are a subsidy to the fishing industry -- private rental charges are closer to $40 per foot.

TABLE 7 continued

BOAT-RELATED FEES

RENTALS AT GALILEE PORT FACILITIES 110,075

Up to $110,000 of the fees collected for use of state port facilities at Galilee in Narragansett goes into this account for transfer to the GF. Amounts over $110,000 accrue to Galilee Development Fund.

BOAT TITLE FEE New fee - collection unavailable

A one-time charge of $10 to secure an owner's title, applicable to all boats, motorized and non-motorized. This fee was just instituted in January, 1989, so yearly revenue is unavailable. Although proceeds currently go to the general fund, a bill before the Senate, having passed in the House, would place these revenues in an existing restricted account dedicated to boating safety purposes.

TABLE 8 WETLANDS, BEACH, AND COAST-RELATED FEES

APPLICATION FOR STATE ASSENT 349,140

Application fee for Coastal Resources Management Council review of proposed alteration or development of lands subject to such review. Residential projects: $500. All others: .5% (one-half of one percent) of project costs.

REGISTRATION OF RECREATIONAL VEHICLES 17,730

Fee, $10 per vehicle per year, to register beach vehicles for beach travel where permitted by local ordinance (many communities prohibit such traffic).

WETLANDS PERMITS 4,600

Fees charged in conjunction with review of proposed development in wetland areas. Preliminary determination fee: $30. Formal application for direct alteration to wetland: $150 per single family home; $500 per multifamily or other development. Proceeds benefit DEM's Water Protection Program: Freshwater Wetlands Enforcement effort. The annual collection listed above ($4,600) is actually a year-end account balance and does not include previous transfers during the year of approximately $88,000 to this restricted fund.

WETLANDS: DEPARTMENT OF TRANSPORTATION REVIEW 10,708

Reimbursement by Department of Transportation for Wetland Permit Reviews performed by DEM for State transportation projects. Proceeds benefit DEM's Water Protection Program: Freshwater Wetlands Enforcement effort.

AQUACULTURE PERMITS 6,925

Fees charged in conjunction with state authority to charge fees for use of coastal areas. Five small projects currently in existence. Tim Dillingham, CRMC, 277-2476.

TABLE 8 continued

WETLANDS, BEACH, AND COAST-RELATED FEES

USE OF TIDAL WATERS 0

State Legislation permits levying of fees for use of coastal areas. Although currently not exercised, the CRMC has recently been charged with developing an implementable program to charge fees for the use of submerged lands (such as marinas, docks, and aquaculture), and a legislative proposal is being considered which would dedicate these fees to planning, public information, and related purposes. This legislation is written broadly enough to allow taxing of activities such as:

-filling of tidal waters
-long-term storage of boats and other vessels
-discharge of pollutants into state waters
-mining of sea bottoms (not currently being done, but possible in the future)

Tim Dillingham, Coastal Resources Management Council, 401 277-2476.

USER FEES AT STATE BEACHES, PARKS, AND RECREATION AREAS 1,539,758

Assorted parking, user, and concession fees at state-owned facilities. Proceeds benefit the Recreation Area Acquisition and Development Fund. Fee increases for 1989 are projected to raise an additional $1,000,000 in revenue.

TABLE 9 FISHING AND SHELLFISHING LICENSES

LICENSE FEES: FRESHWATER MINNOWS 300

Annual license fee.

RECEIPTS: RENTAL OF OYSTER GROUNDS 0

No funds collected in FY88.

RECEIPTS: RENTALS, FISH AND WILDLIFE 0

No funds collected in FY88.

AMONG THE FOLLOWING FEES, THE FIRST $200,000 COLLECTED GOES INTO THE GENERAL FUND. ANY COLLECTIONS ABOVE THAT GO INTO A RESTRICTED ACCOUNT (SHELLFISH AND MARINE LICENSE FEES) FOR RELATED PURPOSES:

LICENSE FEES: LOBSTER FISHING 48,933

Annual license fees. Commercial: $100. Non-commercial: $20.

REGISTRATION FEES: COMMERCIAL FISHING VESSELS 17,085

Annual fee of $5 per foot.

FEE: COMMERCIAL SHELLFISH LICENSE 1,095,000

Annual licenses for commercial shellfishing. Rates are by age group:

- Under 19 years of age:	$25
- 19 to 65:	100
- Over 65:	1

TABLE 9 continued FISHING AND SHELLFISHING LICENSES

FEE: FISH TRAP LICENSE 1,030

Annual fee of $100 per license and $10 per trap location.

FEE: GILL NET LICENSE 817

Annual fee of $100 per license.

FEE: OTTER TRAWL LICENSE 10,305

Annual fee for use of mechanical trawling device of $5 per lineal foot of the registered length of the vessel to be licensed.

FEE: SHELLFISH LICENSE FOR NON-RESIDENTS 59,478

Annual license fee, $100, for non-resident shellfishing. Fourteen-day license fee: $5.50.

FEE: SHELLFISH BUYERS LICENSE 2,350

Annual fee of $50.

TABLE 10

AGRICULTURAL FEES

REGISTRATION OF FEEDS — 37,600

In conjunction with labeling of commercial and customer-formula feeds, fee of $25 per product. Steve Volpe, Agriculture, 277-2781.

FEES: REGISTRATION OF PESTICIDE PRODUCTS — 262,200

Annual registration fee of $50 per pesticide sold within the state. Proceeds go to restricted account to support Pesticide Relief Fund. Ken Ayers, Agriculture, 277-2781.

FEES: NURSERY LAW — 1,420

Fee of $5 per nursery to license all nurseries seeking to ship products outside Rhode Island.

FEE: LICENSING AND CERTIFICATION OF PESTICIDE APPLICATORS — 15,405

License fee of $5 per applicator.

REGISTRATION FEES AND PENALTIES: SOIL AMENDMENT INGREDIENTS: — 1,470

Registration fee of $25 per product to cover costs of testing for product efficacy; required prior to sale of non-fertilizer soil amendment products, e.g., perlite, vermiculite, algaes. Steve Volpe, Agriculture, 277-2781.

TABLE 10 continued AGRICULTURAL FEES

REGISTRATION, ANALYSIS, AND TONNAGE FEES AND PENALTIES: COMMERCIAL FERTILIZER 40,807

For all fertilizers distributed within the state, annual registration fees are charged for each brand and grade of commercial fertilizer at the rate of $10 per nutrient or plant food element claimed. Fees are also charged corresponding to the amount of fertilizer sold (tonnage fees, 10¢ per ton).

FEE: ANIMAL DAIRY INDUSTRY LICENSE 2,733

Annual fee of $5 for license for businesses engaged in the bovine industry.

RECEIPTS: SALES OF FORESTRY PRODUCTS 10,933

Receipts from sales of forest products cut in state-owned lands.

TABLE 11 SOLID AND SANITARY WASTE-RELATED FEES

FEES: INSTALLERS OF ISDS

Annual license fee for ISDS installers: $50 for initial licenses, $25 for renewals. Proceeds to Water Protection Program.

CERTIFICATION OF WASTEWATER TREATMENT OPERATORS 2,257

SURCHARGE: POLLUTION MONITORING SYSTEM 0

Fees for violations of water pollutant levels established by DEM, not to exceed $100 per day.

FEES: SOLID WASTE MANAGEMENT 33,720,745

Landfill tipping fees from State's central landfill in Johnstown. Currently, fees for municipal solid waste are $13 per ton, scheduled to increase 7.5% every year for the next 22 years. Commercial waste tipping fee is currently $49 per ton and is scheduled to rise in July, 1989. Proceeds benefit Rhode Island's Municipal Solid Waste Recycling Project.

TAX: BEVERAGE CONTAINERS 950,145

Fee of 4¢ per case on sales of beverages, and $125 per million dollars of gross receipts on all businesses selling any take-out comestible item. This tax is applied broadly to include any venture selling so much as chewing gum. Proceeds go into a restricted fund for use in (1) state-mandated local recycling efforts [50%], including used oil, hazardous waste, and municipal solid waste recycling, and (2) litter control programs [50%] including local "Keep (City/Town) Beautiful" campaigns and the Department of Corrections inmate litter collection program.

TABLE 11 continued

SOLID AND SANITARY WASTE-RELATED FEES

PENALTIES: LITTERING	8,730

Fee amounts vary according to the offense. Proceeds go into restricted account to fund litter control programs.

FEE: PETROLEUM TRANSFERS AT JAMESTOWN MOORING BUOYS	2,500

Application fee ($50) payable for each instance of transferring petroleum products from a tank to a barge.

Dedication of Fees

Some liken the substantive differences between taxes and fees to the Emperor's New Clothes: there are none. Both are charges to support the public provision of goods and services. However, it appears far easier to secure dedication of a fee in Rhode Island than dedication of a tax. In actuality, fees are much more closely linked to the services they support than are taxes, allowing financial support for a publicly provided service to be shifted away from all taxpayers mainly to those who consume the service in proportion to their demand. Given that in the past, dedicated taxes often flowed to programs bearing little connection to the taxed activity,[4] it would seem easier on equity grounds to make a case for fee dedication rather than tax dedication.

Seventeen of the 37 DEM Fees (46%) listed in Tables 7-11 go into restricted accounts. Were state beach and park user fees to be itemized separately rather than counted as a single category, this percentage would rise substantially. Some fee dedication, such as that for boat registration fees and fishing and hunting licenses, is intended to satisfy Federal aid criteria requiring that fees collected for particular activities not be diverted to unrelated uses. However, many other fee dedications are simply the result of the State's decision to do so. Table 12 summarizes the dedicated fees now received by DEM.

Given the comparatively liberal attitude toward dedicating fee revenue and the current climate of legislative openness to user fees (borne of a severe budgetary shortfall), dedicated fees may be a promising option for supporting estuary programs. Once a CCMP is drafted, consideration may be given to new fees appropriate for the program's technical needs, and other fees may be proposed for services currently provided without charge or at artificially low rates by DEM, thereby freeing resources for reallocation to estuary needs.

For example, DEM may consider instituting charges for processing applications for Water Quality Certificates. These certificates are required of all CRMC Category B permits, as well as others in fulfillment of Section 401 of the Clean Water Act. Approximately 100 applications for Water Quality Certificates are processed by DEM Water Resources each month without fee. A sliding-scale fee reflecting staff resources needed for processing (which vary according to project size and type) may be appropriate for this activity. As another possiblity, additional premiums may be attached to existing state fees associated with sales of chemicals contributing to nonpoint source pollution, and these additional amounts may go toward funding nonpoint source remedies. Precedent for such a system exists in the state's Pesticide Relief Fund discussed in Table 13.

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[4]A notable change from this practice, possibly signalling a shift in legislative thinking, is the new "Hard to Dispose Of" Tax levied on sales of products requiring special disposal. All revenues from this tax flow to DEM for studying disposal solutions.

TABLE 12

DEDICATED FEES RECEIVED BY THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Registration of Boats
Wetlands Permits
Wetlands: Department of Transportation Review
User Fees at State Beaches, Parks, and Recreation Areas
License Fees: Lobster Fishing
Registration Fees: Commercial Fishing Vessels
Fee: Commercial Shellfish License
Fee: Fish Trap License
Fee: Gill Net License
Fee: Otter Trawl License
Fee: Shellfish License for Non-Residents
Fee: Shellfish Buyers License
Fees: Registration of Pesticide Products
Fees: Installers of ISDS
Fees: Solid Waste Management
Tax: Beverage Containers and Litter Control Permit
Tax: Hard to Dispose of Materials
Penalties: Littering

Restricted Receipt Accounts

The Department of Environmental Management currently operates a number of restricted receipt accounts to manage the dedicated funds it receives from federal, state, and other sources. Ten of these restricted accounts exist for the purpose of managing the dedicated fees DEM administers. They are presented in Table 13 with their 1988 collections and a brief discussion of their uses.

TABLE 13

RESTRICTED ACCOUNTS: DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	
RECREATION AREA ACQUISITION AND DEVELOPMENT FUND	1,539,758
Restricted fund consisting of beach, park, golf, and campground parking, user, and concession fees charged at state-owned facilities. These monies may be used for development and renovation of recreation projects with an expected life of five years or more, and for acquisition of state-owned recreation areas, but not for regular operation and maintenance expenses.	
MUNICIPAL RECYCLING PROGRAMS	506,978
Restricted account comprising funds from tipping fees at State-owned landfill in Johnston. Funds are used to support local governments collection and hauling costs for the first three years of their participation in mandatory solid waste recycling. (Fees from the Tax on Beverage Containers are also used to finance Rhode Island's recycling program.)	
NON-GAME WILDLIFE FUND	34,738
Restricted account comprising funds from taxpayer check-off and from donations. Funds used for protection of non-game wildlife and their habitats. Unexpended balances carry over from year to year.	
RECEIPTS: HUNTING LICENSES	192,347
Restricted account containing receipts from all hunting licenses sold, except $2 per license which goes into another restricted account (see Acquisition and Development of Fish and Gamelands). Proceeds used for protection and propagation of game.	
RECEIPTS: ACQUISITION AND DEVELOPMENT OF FISH AND GAMELANDS FROM FISH AND HUNTING LICENSES	110,334
Restricted account funded by $2 collection from sale of each hunting and fishing license. Proceeds used to acquire and develop fish and wildlife lands.	
PESTICIDE RELIEF FUND	262,200
Restricted account funded by fees from the annual registration of pesticide products. Twenty-five percent of this fund is used to make Integrated Pest Management grants to cities, towns, and private institutions. Seventy-five percent of the fund is used for emergency relief efforts in the event of pesticide contamination. Should the balance of this fund exceed $1 million, the extra amount reverts to the General Fund.	

TABLE 13 continued

RESTRICTED ACCOUNTS: DEPARTMENT OF ENVIRONMENTAL MANAGEMENT	
WATER PROTECTION PROGRAM	685,575
Restricted account comprising fees charged for water table verification, ISDS installation permits, ISDS violations, and ISDS installers license fees go into this account. These funds are used to support DEM's ISDS regulatory effort. ISDS Installation permits: Residential: $75 Commercial: 200 Subdivision: up to 500 ISDS installers licenses: Initial: $50 Renewal: 25	
WATER PROTECTION PROGRAM: FRESHWATER WETLANDS ENFORCEMENT	88,210
Restricted account comprising fees charged for review of development proposed for wetland areas. Preliminary determination fee: $30. Formal application for direct alteration to wetland: $150 per single family home; $500 per multifamily or other development. Steve Morin, 277-3162	
RECEIPTS: FISHING LICENSES (FISHERIES)	246,986
Restricted account containing receipts from all fishing licenses sold, except $2 per license which goes into another restricted account (see Acquisition and Development of Fish and Gamelands). Proceeds used for protection and propagation of fish.	
RECEIPTS: SHELLFISH AND MARINE LICENSES	210,008
Restricted account comprising monies in excess of the first $200,000 collected each fiscal year from sales of all shellfish and marine licenses. Proceeds are used to support: - protection and propagation of fish, shellfish, and lobsters - fishing port development and construction - staff support and expenses of Marine Fisheries Council - lease and purchase of land or conservation easements	

LOCAL GOVERNMENT FEES

Rhode Island cities and towns have fairly broad latitude in the types of fees they may charge. The following is a survey of local fees currently in place which have some relationship to estuary restoration and maintenance initiatives.

Impact Fees

Impact fees are an increasingly common way to "make development pay for itself". Developers pay impact fees to local governments to finance the public facilities needed to serve their developments. Typically, impact fees are paid at the time of application for a building permit. Many communities in California, Florida, Texas, and Maryland have used impact fees to finance roads, sewers, schools, and parks. For example, developers in San Bernardino County, California, are charged impact fees based on the type of development; a portion of the proceeds is used for groundwater monitoring and administration of a permit program for new wells. The County of Spokane, Washington, assesses septic tank use fees on all new residential developments that are not hooked up to the public collection system. Revenues are used to recover the public costs of water treatment, monitoring, and corrective action in aquifers contaminated by seepage from septic tanks.

A legislative proposal in the State of Arizona would require all individuals whose operation or activity results in any subsurface discharge to obtain an aquifer protection permit. The cost of the permit will be based on the type of discharge, and will reflect the relative adverse impacts of each type of discharge. Permits for industrial activities, for instance, will cost more than those for residential septic tanks.

Impact fees are said to be equitable in that they charge new consumers proportionate costs of their demands on the system in question. In expanding economies characterized by widespread building, impact fees can net substantial revenues. But they are relatively unstable, because they would drop off rapidly in the event of an economic downturn. Establishing accurate measures for the impacts of different activities can be costly. Depending on the strength of the real estate development sector, impact fees can be politically unpopular. While impact fees generally are not used to change behavior, they can have the effect of shifting the location of development from a region that imposes fees to another that does not.

Impact Fees in Rhode Island

Currently, only five cities in Rhode Island charge impact fees on new development:

- South Kingstown:

  $829 per household for education
  $214 per household for parks and recreation
  $1,043

- Woonsocket

  $2405 per new household unit, apportioned in the following percentages:

57% Education	($1373)
17% Public Works	($409)
11% Library	($265)
9% Public Safety	($216)
6% Parks	($144)

- Cranston

  Two impact fees, depending of the location of new development:

  $593.46 per unit east of Interstate 295, for police and recreation impacts

  $1389.50 per unit west of Interstate 295, for police, recreation, roads and libraries.

- East Greenwich

  Recreation Impact Fee, typically a land set-aside for recreational purposes of roughly one acre for every 20 units. All lands offered are reviewed by the Planning and Subdivision Board; if not acceptable, a fee of $712 per unit (calculated with reference to the town's costs of providing recreational services and facilities) is imposed instead.

  Fee for Downstream Improvements, imposed on new development increasing the burden on downstream drainage facilities or watercourses in East Greenwich, either by increasing surface water runoff or otherwise. This fee is flexibly administered, allowing negotiation between builder and town as to the specific payment, although this is intended to represent projected costs of the anticipated downstream improvements and the proportionate burden contributed by the subdivision. Payment is usually monetary but may include in-kind services, and

may be geared to some problem other than the impact in question. Recent examples include (1) payment for half the cost of replacing a bridge adjacent to a subdivision, and (2) performing significant grading around the perimeter of an elementary school, an improvement which the town had intended to eventually pursue at its own expense and one which was unrelated to the impact of the development in question.

Water Impact Fee, $4000 per lot, to defray costs of extending major trunk line into newly developing areas in the western part of the town.

- North Kingstown

Fee in lieu of land dedication, according to square footage and number of dwelling units. North Kingstown is currently reevaluating their development impact fee system.

None of the cities and towns imposing impact fees sought enabling legislation from the General Assembly. The City of Cranston's experience typifies the process of establishing an impact fee. Cranston did not seek special enabling legislation for its impact fees because it believed that it was acting within its existing legal authority as conveyed by the State's subdivision enabling legislation and by the right to regulate land use inherent in the police power.

Before proposing the fees to the City Council and Planning Board, the Planning Department did extensive legal research and prepared a 71-page feasibility study in advance of the ordinance which carefully explained the justifiable application and calculation of impact fees.[5] There was little political opposition to impact fees at the local level in Cranston. In fact, the City Council's majority-party members (Republican) had initiated exploration of impact fees as an equitable means for distributing the burden of new growth on public infrastructure. Opposition came only from builders and real estate developers who lobbied against them, but ultimately chose not to pursue a court challenge, due to the rigor of the Planning Department's legal homework and its conformance with established judicial precedent.

East Greenwich, like Cranston, did not seek General Assembly permission for its water impact fee on the grounds that the fee was neither a permanent policy nor one applicable to all developments, only those in a particular region of town. The legality of this fee, however, is currently being challenged by a developer.

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[5]Feasibility Analysis of Enacting Impact Fees and Other Land Use Regulations in Cranston, Rhode Island. Cranston City Planning Commission, 1987.

Sewer Assessments and Connection/Access Fees

Like impact fees, sewer assessments and sewer connection or access fees are forms of capital recovery charges. A sewer assessment is customarily a charge for a proportionate share of expenses of installing sewer lines between a neighborhood and the larger sewer system. Sewer connection or access fees are usually intended as a proportionate charge for the wastewater treatment plant capacity required to serve new users. In addition to treatment facility costs, connection charges may also incorporate sewering costs.

In practice, sewer assessment charges may not reflect actual sewering costs for an area. Often, some portion of costs is borne by the municipality as a whole through general revenues. In other instances, a uniform flat-rate assessment is levied upon all dwellings which does not account for locational cost differences in sewering.

In a variation on connection fees, several cities have sold access rights or "capacity futures" to as yet unbuilt water or sewer facilities. Buyers purchase capacity credits that secure their rights to future sewage treatment capacity and that enable wastewater treatment suppliers to obtain funds from users before plant construction. In 1984, Escondido, California financed a $12 million treatment plant by selling only half its capacity in advance of construction to developers and residents. The city of Houston has financed several plants this way as has Upper Merion Township, Pennsylvania. This method is best suited to developing areas where new system users can be expected to "buy in".

Sewer Assessments and Connection Fees in Rhode Island

Sewer assessments and connection fees in Rhode Island reflect a wide variety of local approaches, making comparison complicated. Most municipalities charge only sewer assessment fees, typically allowing repayment over 20 to 30 years. Sewer assessments may be identical throughout a jurisdiction, or varied according to differences in area sewering costs. Moreover, connection fees are sometimes aimed only at recovering sewering costs without regard to treatment facility costs, and other times may reflect both expenses.

Table 14 lists sewer assessments and connection fees currently in place in Rhode Island cities and towns. Relatively few municipalities currently charge connection fees, making them a potentially exploitable source of capital funding for wastewater treatment plant expansions related to estuary improvement. They may even be suited to communities that currently use only septic systems that are found to be largely failing or otherwise unsuited to the local hydrogeology.

TABLE 14

RHODE ISLAND SEWER ASSESSMENT AND CONNECTION FEES			
MUNICIPALITY	SEWER ASSESSMENT	CONNECTION FEE	COMMENTS
Barrington	$1800	None	All required to connect by 1984; twenty year repayment of assessment
Bristol	None	$2670	Applies when sewering done with town funds
Burrillville	$10/ft.	None	Thirty year repayment
Central Falls	None	None	
Cranston	Varies	$1200 $3000	East: already developed West: new development
Cumberland	$20-55/ft.	None	Twenty year repayment
East Greenwich	Varies	None	
East Providence	Varies	None	
Jamestown		$5000	
Johnston	Varies	None	
Lincoln	$1900	None	Twenty year repayment
Little Compton	None	None	All septic systems
Middletown	None	$50	
Narragansett	Varies	None	
New Shoreham	None	None	Considering capital recovery fee
Newport	None	$600	
North Kingstown	None	None	All septic systems
North Providence	None	$100	
Pawtucket	None	None	
Providence	None	None	
Smithfield	None	$25	

TABLE 14 continued

RHODE ISLAND SEWER ASSESSMENT AND CONNECTION FEES			
MUNICIPALITY	SEWER ASSESSMENT	CONNECTION FEE	COMMENTS
South Kingstown	$8000	$1000	Actual sewering cost: $11,500 Connection fee to be raised to $3,000
Tiverton	None	None	All septic systems
Warwick	$30/ft.	None	
West Warwick	$65/ft.	None	Thirty year repayment at 7% interest
Westerly	$750/ft.	$500	Thirty year repayment of assessment
Woonsocket	None	$400	$3000 for non-residents

Sewer Use Fees

Sewer use fees are the charges paid for sewer use and treatment of wastewater by those households and establishments connected to municipal sewage systems, typically appearing on quarterly or biannual water and sewer bills. Sewer charges can vary substantially in structure, the most familiar types being:

TABLE 15

COMMON SEWER USE FEE STRUCTURES	
Flat Fee	$ X (fixed amount) regardless of quantity of wastewater generated
Flat Rate	$ X per unit of wastewater generated
Increasing Block Rate	$ X per unit of wastewater generated, with unit charge increasing as wastewater quantity increases
Decreasing Block Rate	$ X per unit of wastewater generated, with unit charge decreasing as wastewater quantity increases
Two-part Fee	$ X base charge (may or may not include consumption up to a specified level), plus $ X per unit generated thereafter

Table 16 compares estimated annual residential sewer use fees for most Rhode Island cities and towns at an assumed usage rate of 300 gallons per day. With the exception of those communities where a flat annual rate prevails, sewer use charges are calculated on the basis of metered water use, the commonest practice in the United States.

TABLE 16

ESTIMATED ANNUAL SEWER USE FEES BASED ON WATER USAGE RATE OF 300 GALLONS PER DAY (GPD)		
Bristol	$59.82	Flat Rate
Woonsocket	65.00	Flat Rate
Middletown	72.20	Flat Rate
Cumberland	85.00	Flat Rate (Blackstone Valley District)
Central Falls	85.00	Flat Rate (Blackstone Valley District)
Pawtucket	85.00	Flat Rate (Blackstone Valley District)
Lincoln	85.00	Flat Rate (Blackstone Valley District)
Westerly	107.78	Flat Rate
North Smithfield	112.00	Flat Rate
Johnston	116.24	Flat Rate for 0-200 GPD; Unit charge for additional consumption (Narragansett Bay Commission)
North Providence	116.24	Flat Rate for 0-200 GPD; Unit charge for additional consumption (Narragansett Bay Commission)
Providence	116.24	Flat Rate for 0-200 GPD; Unit charge for additional consumption (Narragansett Bay Commission)
Smithfield	124.20	Flat Rate
East Greenwich	124.43	Unit Charge
Burrillville	150.00	Flat Rate
Cranston	165.00	Flat Rate
West Warwick	169.43	Flat Rate for 0-74 GPD; Unit charge for additional consumption

TABLE 16 continued

ESTIMATED ANNUAL SEWER USE FEES BASED ON WATER USAGE RATE OF 300 GALLONS PER DAY (GPD)		
Barrington	181.07	Flat Rate for 0-82 GPD; Unit charge for additional consumption
Narragansett	190.00	Flat Rate
South Kingstown	214.00	Flat Rate for 0-165 GPD; Unit charge for additional consumption
Warwick	256.34	Base administrative fee plus Unit charge for consumption
Jamestown	288.39	Unit Charge
Newport	301.00	Unit Charge
New Shoreham	Seasonal Rates	Four quarterly rates apply -- highest occurs in peak tourist season
Warren	No Fee	Recovered through property taxes
East Providence	No Fee	Recovered through property taxes
Charlestown	All Septic	
Coventry	All Septic	
Tiverton	All Septic	
Little Compton	All Septic	
North Kingstown	All Septic	

Variety of Sewer Use Fee Structures in Rhode Island

As can be seen from Table 16, substantial variety occurs among Rhode Island's municipal sewer use fee levels. The lowest fee listed in Table 16, for example, is 5 times the highest. There is also much variety among sewer fee rate structures and the corresponding incentives they provide to limit consumption. Of the twenty-four cities and towns in which residential users are directly billed for sewer use, 13 (54%) employ an annual flat fee method, providing no incentive to curtail wastewater discharge.

Six communities (25%) have combination fee systems in which a base rate applies up to a certain usage level, at which point a unit charge applies to additional consumption. This rate method provides limited incentives to reduce consumption past the amount covered in the base rate. Among those communities charging users this way, there is a wide range in both the per-gallon charges embedded in the base rate and in the incremental unit charge per hundred cubic feet of consumption (HCF) imposed after the base consumption has been exhausted. Table 17 approximates these amounts.

TABLE 17 COMPARISON OF RATES FOR TWO-PART FEE SYSTEMS IN RHODE ISLAND

FACILITY	BASE CHARGE PER GALLON	BASE CONSUMPTION	ADDITIONAL UNIT CHARGE PER HCF
Narragansett Bay Commission: Providence North Providence Johnston	.33¢	Up to 200 GPD	$1.05
West Warwick	.58¢	Up to 74 GPD	$1.10
Barrington	.67¢	Up to 82 GPD	95¢
South Kingstown	.71¢	Up to 165 GPD	$1.46

Five (21%) communities employ unit charge fee systems, which provide greater incentive to monitor consumption than either of the above two methods. It is noteworthy that 3 of these cities, Warwick, Jamestown, and Newport, represent the highest annual sewer use charges displayed in Table 16 for the assumed annual usage rate. Only one town, New Shoreham, applies a different unit charge for each quarter of the year, ranging from .6¢ to 1.8¢ per gallon, to reflect peak demand on its wastewater facility. New Shoreham has a substantial summer season population whose influx is largely responsible for the wastewater treatment facility

expansion recently completed. The peak rate, which applies in summer months, is an attempt to recapture this capital expense from its beneficiaries.

Finally, two Rhode Island communities charge no sewer use fees at all, instead including these as a percentage of the general property tax bill sent to all property owners. As with flat fees, this method provides no reduction incentive effects. It is also inequitable to the extent that household exactions for sewer use are tied to property assessments, which can vary substantially from parcel to parcel.

Discharge Permit Systems and Pretreatment Fees

All commercial and industrial establishments in Rhode Island discharging wastewater either directly into public waterways or into sewer systems are required to hold wastewater discharge permits to ensure compliance with Rhode Island Pollution Discharge Elimination System (RIPDES) regulations or any applicable federal or local discharge standard. With a few minor exceptions, the permit system in Rhode Island is administered at the local government level. In addition to issuing permits for establishments within their jurisdiction, local authorities make on-site compliance inspections as needed throughout the year.

In conjunction with local discharge permitting, a variety of fees and standards prevail throughout the state. In some cities and towns, only those dischargers considered "Categorical Users" by U.S. EPA standards[6] are assessed permit fees, although all are required to pretreat their wastewater and are supervised by means of periodic inspections. In other localities, all holders of discharge permits pay fees and are subject to periodic inspection.

Some cities and towns in Rhode Island require their pretreatment programs (issuance of permits, performance of inspections, and pursuit of violations) to be self-supporting and consequently have higher fee structures reflecting this policy. Most, however, do not.

Some municipalities do not perform their own pretreatment inspections on resident industries. For some, this function is handled by the area wastewater treatment authority (e.g., Barrington relies on East Providence for its pretreatment inspections; Blackstone Valley District Commission performs inspections for those towns within its jurisdiction). Other cities and towns, lacking sufficient in-house expertise or staff, have spun this function off through contracts with private engineering firms. Cranston and West Warwick, for example, issue annual contracts to engineering firms for inspections and related testing. These latter programs are self-supporting, with permit and inspection fees geared to performance costs and therefore subject to annual fluctuations.

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[6]Categorical industries are those regulated specifically by EPA by virtue of either their SIC classification or by the processes they perform to manufacture their product.

Finally, cities and towns without DEM-approved pretreatment programs (i.e., those with few industries) have their permits issued and inspections performed by DEM. Currently DEM charges no permit fees or inspection fees for this service, although the use of such fees in the future is being considered.

An auspicious development in recent months has been the interest and in some cases, the shift, by many Rhode Island industries to "zero discharge" systems in which no pretreated wastewater at all is discharged. These firms have mainly been prompted by significant cost reductions that can be realized through zero discharge -- in one case, more than $100,000 per year was saved on water use alone. Apparently, there is a great need for guidance to industries of all sizes as to how they may participate in such programs.

It is useful to examine the discharge permit fees currently in place among Rhode Island's 39 cities and towns. Table 18 displays the fees for those treatment categories defined under RIPDES guidelines for wastewater classification. With the exception of Category 1, U.S. EPA Categoricals, strict uniformity among these categories is impossible to ensure due to adaptations of category definitions to suit prevailing local conditions such as the types of industry present or the degree of local sewering and its consequent impact on effluent dilution. However, every attempt was made to keep categories within the table substantially alike.

TABLE 18

ANNUAL PRETREATMENT DISCHARGE PERMIT FEES				
PERMIT CATEGORY:	1	2	3	4
Barrington	1250	1250	1250	250
Central Falls	700	500	300	100
Cranston	Private contractor sets rates specific to each discharge permit			
Cumberland	700	500	300	100
East Greenwich	500			
East Providence	1250	1250	1250	250
Johnston	1707	854	427	214
Lincoln	700	500	300	100
Middletown	No fees - possibly some in future			
Narragansett	No fees			
Newport	No fees - possibly some in future			
New Shoreham	No fees			
North Providence	1707	854	427	214
Pawtucket	700	500	300	100
Providence	1707	854	427	214
South Kingstown	50	25	25	25
Warwick	1000	750	375	250
West Warwick	Private contractor sets rates specific to each discharge permit			
Woonsocket	1000	750	500	100

TABLE 18

ANNUAL PRETREATMENT DISCHARGE PERMIT FEES				
PERMIT CATEGORY:	1	2	3	4
Barrington	1250	1250	1250	250
Central Falls	700	500	300	100
Cranston	Private contractor sets rates specific to each discharge permit			
Cumberland	700	500	300	100
East Greenwich	500			
East Providence	1250	1250	1250	250
Johnston	1707	854	427	214
Lincoln	700	500	300	100
Middletown	No fees - possibly some in future			
Narragansett	No fees			
Newport	No fees - possibly some in future			
New Shoreham	No fees			
North Providence	1707	854	427	214
Pawtucket	700	500	300	100
Providence	1707	854	427	214
South Kingstown	50	25	25	25
Warwick	1000	750	375	250
West Warwick	Private contractor sets rates specific to each discharge permit			
Woonsocket	1000	750	500	100

Individual Sewage Disposal System Programs

Individual sewage disposal systems (ISDS) in Rhode Island are largely unsupervised once installed. Initial installation requires water table testing and soil percolation testing, supervised by DEM. Routine maintenance and inspection, however, are not performed in a coordinated manner. Recently there has been a move to establish local septage pumping and maintenance districts, culminating in state enabling legislation that grants authority to create such districts and assess fees for services. As yet, however, no septage districts are operating due to lack of a facility to treat the pumped septage.

Charlestown, a municipality using septic systems exclusively and that pioneered the move to establish a septage pumping district within its borders, has worked out the operational details of its district and will proceed as soon as a sewage treatment plant can be found to accept its waste. Once located, Charlestown proposes to use the services of a contract pumper who will schedule pumping contiguously throughout a neighborhood once every three years, and to hire an in-house sanitarian to make regular ISDS inspections. For these functions, original cost estimates call for an annual fee calculated to include 1/3 of the cost of pumping every three years plus an annual administrative fee, estimated at $25 per year, a total of $42 dollars per year. This amount, however, is subject to revision as Charlestown negotiates with neighboring communities for septage disposal arrangements.

Only three other local-government sponsored ISDS programs exist in Rhode Island. These programs provide modest incentives for regular ISDS pumping or replacement of failing systems:

- The Town of South Kingstown provides a $30 rebate for ISDS pumping, payable only when the septage hauler uses the town's own sewage treatment plant.

- The Town of Bristol provides rebates of $40 for ISDS pumping expenses with proof of payment, up to twice a year. The equity rationale for this subsidy is that the town has failed to provide ISDS users with a sewer system.

- The City of Warwick has established a grant program for homeowners whose systems require frequent pumping (4-5 times a year). Warwick makes grants to homeowners for 40% of the cost of replacing such systems and will loan homeowners the 60% balance, repayable over 20 years at 9% interest. Persons taking advantage of this program are afterward required to pump their systems at least three times a year.

Although ISDS may have adverse environmental impacts, particularly on ground and surface water, they are entirely exempt in Rhode Island from any fees or taxes to compensate for these impacts. Thus, ISDS may be good candidates for fee-based contributions to estuary clean-up and maintenance activities. Two such fee systems possibly applicable to Rhode Island are discussed here. However, a discussion with Peter Calese of Rhode Island's Water Resources

Board indicated that without government provision of some visible service, such as regular tank pumping, such a fee may meet with great public resistance given the state's political culture.

ISDS Fee Systems

Spokane County, Washington: User Fees to Fund Aquifer Monitoring and Extension of Interceptor Sewers

In 1985, the County of Spokane, Washington, passed a law approved in 1986 by 75% of its voters that established an Aquifer Protection Collection. The collection amounts to an annual fee assessed on all properties according to the waste disposal system they employ. Properties connected to a sewer system pay $15, and those on relying on ISDS pay $30, a higher fee on the grounds that they are contributing to aquifer pollution. The charge is assessed to the property itself and is billed through the property tax system, thus minimizing billing and collection costs.

These fees bring in approximately $2.5 million annually which is used to fund regular aquifer testing as well as construction of interceptor sewers. A small percentage of the collection (6%) goes to administrative and operational costs of the program. Once sewers are extended to areas without them, properties are required to hook up to them but at a substantially reduced cost ($500) than before this program began. Contact: Janet Clarke, (509) 458-2538

Thurston County, Washington: Operational Permits Fund System Inspections and Aquifer Testing

In a system begun in the mid-1970s, the Thurston County Department of Environmental Health requires all ISDS installed in geologically sensitive areas (e.g., along waterways or recharge areas) as well as all non-standard systems (e.g., experimental systems, group systems, or large users) to hold valid Operational Permits. It is hoped that all ISDS will soon be required to hold them as well. These permits are issued for 1-5 years each, depending on system characteristics. System and drainfield inspections are performed by DEH personnel with each renewal. Property owners are required to sign and notarize protective covenants stating that valid operational permits are on file and including stipulations requiring regular tank pumping, usually every four years. These covenants are checked whenever property ownership is transferred.

The operational permit system is funded entirely by user fees. A typical single family residential fee for a four year permit would be $65.90 for the first year, and $42.70 for each of the subsequent three years, a total of $194 over four years. Included in that total is $32 for administration, $7 for recordation of the protective covenant, $49 for drainfield inspection, and $2.20 per month for aquifer and other water quality testing. Contact: Kay Heymann, (206) 786-5455.

Finally, it may be useful to compare the wide-ranging fees charged by some wastewater treatment facilities in Rhode Island for accepting septage for treatment, displayed in ascending order in Table 19. Many wastewater treatment facilities do not accept septage at all, and others accept it only from ISDS within their boundaries.

TABLE 19

PER-GALLON SEPTAGE FEES CHARGED BY RHODE ISLAND WASTEWATER TREATMENT FACILITIES	
East Providence	.8¢
Bristol	.75¢
Burrillville	1.15¢
Newport	2¢
Middletown	2¢
Woonsocket	2¢
New Shoreham	2¢
Blackstone Valley District Commission	2¢
Warren	2.5¢
Westerly	2.66¢
Smithfield	3¢
South Kingstown	3.45¢
Cranston	3.45¢
Warwick	3.85¢
East Greenwich	5¢
West Warwick	5¢
North Kingstown	Not Accepted
Narragansett	Not Accepted
Narragansett Bay Commission	Not Accepted
AVERAGE FEE:	2.6¢
STANDARD DEVIATION:	1.25¢

Beach Fees

Rhode Island's coastal communities having publicly-owned beaches may choose to charge user fees, and most do. Aside from local acceptance, the only limiting factors in the setting of beach fees apply to those beaches which have received federal or state funds. These beaches may not exclude non-residents. They must provide the same opportunities and services (e.g. season passes, memberships) to non-residents and residents alike. They may, however, charge non-residents fees that are twice those charged residents.

Although this study did not include an exhaustive survey of local beach fees, several are provided here which reflect the diversity of prevailing levels.

TABLE 20

PARTIAL LIST OF LOCAL BEACH FEES		
MUNICIPALITY	RESIDENTS	NON-RESIDENTS
Charlestown	$10/ season	$8/ daily 15/ weekend
Narragansett	$7.50/ season 12.50/ car pass	$15/ season No car pass available
Smithfield	50¢ season	Not permitted

Local beach fees can flow into municipal general revenues or can be placed in a restricted fund. The Town of Narragansett, for instance, places its beach fees in an enterprise fund to finance beach operation and maintenance, repay a related bond issue, and contribute money to the town in lieu of property taxes.

Parking fees from state-owned beaches also provide revenue to the municipality in which they are located. Forty percent of all parking fees collected are retained by the host municipality. In 1988, the locally-retained portion of state beach parking fees amounted to $218,384.

Mooring Fees

Rhode Island's coastal communities host extensive pleasure boating activity and consequently contain many docks, marinas, and boatyards. The vast majority of these are privately-held facilities. The fees they charge for services are not redistributed to any publicly-sponsored estuary projects and information about their fee rates was not collected for this study.

A number of coastal communities operate publicly-owned marinas. It appears that for the most part these provide only mooring facilities rather than more expensive docking facilities. Towns owning dockage facilities will frequently lease them out to private concessions for management. Mooring fees at publicly-owned marinas flow to local general revenues, and are thus possible sources of funds for estuary programs. Information about their fees is provided in Table 21. It is worth noting that many of these facilities claimed to have long waiting lists, indicating that perhaps fee rates are too low relative to those of private marinas and could possibly be raised.

TABLE 21.

ANNUAL MOORING FEES AT PUBLICLY-OWNED MARINAS		
MUNICIPALITY	RESIDENTS	NON-RESIDENTS
Barrington	$50	$50
Bristol	50	100
East Greenwich	100	Not accepted
East Providence	50	Not accepted
Little Compton	$2/foot	Not accepted
Middletown	$20-75 Based on length	$52-262 Based on length
New Shoreham	$25/night	$25/night
Newport	10-35¢/lb.	20¢-$1/lb.
South Kingstown	$4/foot	Not accepted
Warren	$20	$125
Warwick	$25	$50

Building Permit Fees Associated with Plan Reviews and Site Inspections for Enforcement of Soil Erosion Control Ordinances

Before a structure may be built in Rhode Island, as elsewhere, a series of construction permits must be obtained. These generally include a structural permit, usually based on the estimated cost of the structure, as well as electrical, mechanical, and plumbing permits. The fees charged to secure these permits are intended to recapture some or all of the costs associated with reviewing design plans for compliance with applicable construction codes, as well as for making on-site inspections if required.

Reflecting increased awareness of the environmental problems associated with soil erosion from construction activity, Rhode Island state enabling legislation now allows local governments to develop and adopt soil erosion and sediment control ordinances and has even supplied a model such ordinance as a blueprint. These ordinances typically specify design or performance standards for stormwater management on the development site, as well as erosion control measures during the period of construction.At present, fourteen Rhode Island cities and towns have adopted these, and another fourteen are in the process. Three additional municipalities, although not planning such ordinances, include soil erosion and sediment control provisions in their zoning and subdivision codes. Table 22 lists all of these municipalities.

Adequate enforcement of soil erosion and sediment control provisions requires both proper plan reviews prior to construction and site visits during construction to ensure correct application of procedures. Currently in Rhode Island, review of development plans at the local government level is almost totally lacking, as is enforcement of on-site erosion control provisions, largely due to:

- Lack of a standard and routine procedure for conduction reviews of all proposed development;
- Inadequate knowledge of erosion control techniques on the part of local building inspectors, typically charged with oversight of these ordinances; and
- Inadequate funding for carrying out such an approach.

At present, a handful of Rhode Island municipalities submit selected development plans to whichever of Rhode Island's three Conservation Districts (discussed below) the project is located in. The resident District Conservationist, an expert trained in these matters, then conducts a technical review of the proposed permanent on-site stormwater management facilities as well as the soil erosion and sediment control techniques to be used during construction. Unfortunately, compensation of these districts for their services is both woefully inadequate and not borne by developers, coming instead from general municipal funds.

While the Conservation Districts represent a potentially good source of technical advice and review, present compensation must be brought to a level equal to demand for these services, and must certainly be increased if reliance on the Districts increases. One possibility for securing this funding is to include an additional fee for site plan review by a Conservation District among the other permit fees paid by developers. While not currently known what size fee would be needed to meet this expense, it should probably be levied on a sliding scale commensurate with the time needed to review the project. At present, no such fees are charged developers. For information regarding existing fee levels borne by developers, Table 23 displays fees charged for structural permits (exclusive of electrical, plumbing, and other special permits). To facilitate comparison, a residential structure costing $100,000 to build was chosen as an arbitrary standard.

TABLE 22

STATUS OF MUNICIPAL SOIL EROSION AND SEDIMENT CONTROL ORDINANCES IN RHODE ISLAND	
IN EFFECT:	Burrillville Cranston East Greenwich Foster Glocester Johnston Lincoln North Smithfield Scituate Smithfield Tiverton Warren Warwick West Warwick
UNDER DEVELOPMENT:	Bristol Coventry Cumberland Hopkinton Jamestown Middletown Narragansett Newport North Kingstown Providence South Kingstown West Greenwich Westerly Woonsocket
NO ORDINANCE PLANNED, BUT PROVISIONS FROM STATE MODEL ORDINANCE INCLUDED IN ZONING AND SUBDIVISION CODES:	Charlestown Exeter Richmond

TABLE 23

BUILDING PERMIT FEES (STRUCTURAL ONLY) FOR $100,000 RESIDENCE	
Little Compton	$150
Burrillville	200
Central Falls	227
East Greenwich	269
Westerly	275
West Warwick	305
Lincoln	351
Newport	431
Bristol	440
Tiverton	450
South Kingstown	490
Barrington	500
Warren	500
Johnston	500
Coventry, Cumberland	505
N. Kingstown, N. Providence	505
Pawtucket	515
Woonsocket	540
Charlestown	540
Smithfield	605
Warwick	705
Providence	770
Cranston	780
AVERAGE:	$463
STANDARD DEVIATION:	$159

Special Districts for Financing Infrastructure and Services

Special service districts have emerged within the last quarter century as important techniques for financing infrastructure. The number of special districts established in the United States has grown to comprise one-third of all government entities providing public services. Since World War II, the number of non-school special districts has doubled every 20 years, while the number of general purpose governments (counties, municipalities, and townships) has remained stable and the number of school districts has actually declined due to consolidation.

Recent inflationary pressures on public budgets and property tax "rebellions" have motivated some general-purpose local governments to limit their fiscal responsibilities, making them reluctant or unwilling to provide new services or extend existing ones to growing areas. When new facilities or services are needed, the creation of special districts can mitigate or eliminate the resulting increased fiscal burden on general governments. Apparently, voters who stand to benefit directly from improvements made by a special district are more willing to vote for special tax levies to pay for these than for higher general property taxes.

Advantages of Special Districts

Certain aspects of the special district provision of public services are relatively advantageous compared to general-purpose government provision:

- The use of special district financing avoids the debt constraints of municipalities.
- Services and costs can be targeted to users, allowing the infrastructure burden to be shifted from all taxpayers to just those within the jurisdiction of a special district.
- Administrative efficiency can be increased by allowing service providers to concentrate on delivering only one type of service.
- Demands for service may be reduced to the extent that consumers pay the actual costs of the service they use and to the extent that consumers can adjust their consumption according to real needs.
- Service delivery is largely shielded from local politics. Apart from the periodic appointment of special district board members or the possible review of proposed bond issues, local governments do not control the actions of special districts.
- Removal from the political process protects against diversion of funds to unrelated

uses while freeing local political authorities to focus on other issues.

- A principal advantage, particularly in growing areas, is the ability to provide services where local governments have limited financial or administrative capacities or lack the tax base to support increased infrastructure needs (e.g., developers working in rural areas).

Disadvantages of Special Districts

Three principal disadvantages are often cited against special districts:

- The power of local governments to manage public services is diminished.
- An unmanageable proliferation of governmental units can ensue from excessive special districting.
- The political fragmentation resulting from district proliferation can contribute to inadequate and inefficient service provision, such as failure to exploit economies of scale and contiguity.

Yet studies of areas with multiple special service districts, such as Southern California, have differed in their conclusions about the occurrence and extent of these effects.[7] It appears difficult to generalize about negative consequences of increased reliance on special district provision of services.

SPECIAL DISTRICTS IN RHODE ISLAND

With the exception of housing authorities, which follow a different set of rules regarding their formation, all special service districts require a specific act of the Rhode Island General Assembly for their creation. The specifics of their legislative charters vary considerably, but generally they include authority to raise revenues, issue debt within established limits, and perform enumerated functions.

Special districting in Rhode Island is comparatively more limited than elsewhere in the United States. At this time, special districts in Rhode Island consist principally of seven types:

1. Water districts, of which there are seven, which supply and sell drinking water

[7]Schell, Freida L. "Quasi-governments: The Southern California Experience", Journal of Public Finance, Volume 12, October 1987.

and maintain the related infrastructure. One of these, the Kent County Water district, is noteworthy for the fact that its service area spans several political jurisdictions and it is self-financing through user fees.

2. Wastewater districts, of which there are two (Blackstone Valley District Commission and Narragansett Bay Commission), charged primarily with operating publicly-owned wastewater treatment facilities.

3. Fire districts, of which there are 47, largely concerned with fire protection, although many are responsible for other maintenance functions and some have relinquished fire control responsibilities altogether.

4. Rhode Island Solid Waste Management Corporation which owns and operates the state's central landfill and recently opened recycling center. Self-financing through tipping fees and sales of recycled products, it provides a portion of the financial support given to state-mandated municipal recycling programs during their first three years of operation.

5. The Pawtuxet River Authority, chiefly a conservation and advocacy group concerned with pollution of the Pawtuxet River but having no enforcement power. It is permitted to acquire real property and receives a small amount of state funding as well as minor contributions from 5 cities and towns.

6. Housing authorities, of which there are approximately 25, charged with supplying and maintaining public housing. Recent legislation permits them to issue debt for construction and rehabilitation of housing.

7. Regional school districts, of which there are three, and local school districts, responsible for operating and maintaining public schools within their boundaries.

Fire Districts in Rhode Island

Fire districts in Rhode Island have been of particular interest as possible candidates for stormwater control authority and activity in the Narragansett Bay Watershed. To pursue this possibility, all fire districts thought to have road maintenance responsibilities were contacted in the course of this study to determine whether or not they are currently engaged in stormwater management or would be good candidates for carrying out such activity in the future. With two minor exceptions, Quonochontaug Central Fire District and Bonnett Shores Fire District, no fire district was found having any coordinated stormwater responsibilities. Nonetheless, related activities were being conducted and very strong environmental concerns were present, making fire districts good candidates for at least some types of estuary maintenance initiatives such as data monitoring and types of nonpoint source control.

Rhode Island's fire districts are essentially volunteer neighborhood-level organizations, often comprising 300 residences or fewer. All are created by specific General Assembly enabling legislation which allow revenue assessments. These organizations have pooled together raise funds and issue contracts to private service providers for items considered desirable by a majority of residents. All got their start in provision of fire protection services, but many have since relinquished this function to some larger political jurisdiction. Districts located in waterfront communities tend to have strong environmental concerns and take advocate-activist roles regarding their local resources, particularly their salt ponds. Given the largely volunteer nature of fire districts and the majority-rule nature of their agendas, it is not clear whether or not they would be good candidates for activities that do not have a directly observable nexus to their communities, such as stormwater maintenance.

The following are summary profiles of several coastal area fire districts contacted in the course of this study which serve to illustrate their nature and the scope of their activities:

Bonnett Shores Fire District
Moderator: Thomas McGovern, 789-5138

The Bonnett Shores Fire District has limited stormwater management involvement concerning the breachway between Narragansett Bay and Wesquage Pond. It holds a fifty-year permit from DEM to keep the breachway open so that water will drain out and not flood surrounding property. It also periodically cleans roadside swales of accumulated silt.

Quonochontaug Central Fire District
Moderator: Mr. O'Brien 322-8816

The Quonochontaug Central Fire District comprises 180 taxpaying units and its most recent annual budget was $108,000. It owns and maintains a sump pump to remove stormwater from one area where it pools on the roadside, but otherwise, stormwater "is not felt to be a problem." The district maintains its own paved roads and roadside lighting, a recently installed drinking water supply system, and tennis courts. It also owns some beach parcels.

Shelter Harbor Fire District
Moderator: Ted Goodchild, 322-7256

The Shelter Harbor Fire District comprises approximately 150 taxpaying units. Its chief responsibilities are road, beach, and dock maintenance. Stormwater is not considered to be a problem.

Watch Hill Fire District
Moderator: R. Brockman, 348-8678

The Watch Hill Fire District comprises roughly 350 taxpaying units in a well-to-do community, formerly an old resort area which still has a sizeable seasonal population. Responsibilities include provision (by contract) of fire services, solid waste collection, parks and beach maintenance, and sidewalk maintenance. Although they are listed in a Rhode Island Department of Economic Development summary as having road maintenance responsibilities, they do none of this.

This group is very environmentally concerned and active, especially with regard to local salt ponds. They worry about the effects of overdevelopment, particularly septic contamination of ponds, although they oppose sewering for the impetus it will provide to development. They are interested in forming a septage pumping district.

The Watch Hill Fire District owns several major beachfront tracts on which they lease to concessionaires a carousel and bathhouses. Last year's budget was roughly $300,000, $180,000 of which was from tax revenue and the balance from rental income. Although their charter contains no ceiling on the tax they may charge, they have not needed to raise their millage rate in years due to the rental income supplement.

Table 24 summarizes fire districts in Rhode Island as of 1986, the most recent year for which complete data was collected by the Rhode Island Department of Administration's Division of Economic Development.

TABLE 24

FIRE DISTRICTS IN RHODE ISLAND

	MILL RATE PER $1000 ASSESSED VALUE	PERCENTAGE OF MUNICIPALITY INCLUDED
KENT COUNTY		
Coventry		
Coventry Fire District	$2.50	31.8%
Central Coventry Fire District	2.00	4.00
Harris Fire & Lighting District	3.20	1.50
Hopkins Hill Road Fire District	3.00	4.00
Tiogue Fire District	3.80	2.50
Washington Lighting District	2.40	3.20
Western Coventry Fire District	1.80	46.1
East Greenwich		
East Greenwich Fire District	1.65	100.00
Warwick		
Buttonwoods Fire District	1.70	.60
NEWPORT COUNTY		
Portsmouth		
Portsmouth Water & Fire District	$1.10	2.70%
Tiverton		
North Tiverton Fire District	.60	5.40
Stone Bridge Fire District	1.00	2.00
PROVIDENCE COUNTY		
Burrillville		
Glendale Fire District	$2.50	8.70%
Harrisville Fire District	2.40	5.20
Nasonville Fire District	1.50	10.40
Oakland-Mapleville Fire District	2.00	1.70
Pascoag Fire District	1.70	2.10
Cumberland		
Ashton Fire District	1.80	9.00
Berkley Fire District	1.50	8.00
Cumberland Hills Fire District	1.35	27.30
North Cumberland Fire District	1.55	47.00
Valley Falls Fire District	1.65	8.70

TABLE 24 continued

FIRE DISTRICTS IN RHODE ISLAND	MILL RATE PER $1000 ASSESSED VALUE	PERCENTAGE OF MUNICIPALITY INCLUDED
PROVIDENCE COUNTY continued		
Glocester		
Chepachet Fire District	$1.00	21.60%
Harmony Fire District	2.70	27.0
West Glocester Fire District	2.50	NA
Lincoln		
Albion Fire District	1.00	20.30
Fairlawn-Lincoln Fire District	1.50	4.50
Limerock Fire District	1.20	47.80
Lonsdale Fire District	2.20	5.50
Manville Fire District	1.50	10.10
Quinnville Fire District	1.55	4.00
Saylesville Fire District	1.80	7.70
WASHINGTON COUNTY		
Charlestown		
Quonochontaug Central Fire District	$2.00	2.40%
Narragansett		
Bonnett Shores Fire District	1.70	3.50
North Kingstown		
Pojac Point Fire District	4.00	2.60
South Kingstown		
Indian Lake Shores Fire District	1.00	.80
Kingston Fire District	1.75	4.00
Union Fire District	.66	11.00
Westerly		
Bradford Fire District	1.40	12.30
Dunn's Corner Fire District	.35	13.80
Misquamicut Fire District	2.00	10.80
Shelter Harbor Fire District	2.08	3.00
Watch Hill Fire District	.26	6.10
Weekapaug Fire District	.28	3.00
Westerly Fire District	.70	24.60

Conservation Districts

Within the State of Rhode Island there are three Conservation Districts set up by state law and given extensive responsibilities for all types of natural resources within the state. Among their primary responsibilities, these districts provide technical assistance to landowners, especially farmers, regarding conservation issues such as soil erosion, sediment control, and water management. Conservation Districts also perform a limited number of development site reviews for local governments within their boundaries, mainly focusing on soil erosion, sediment control, and stormwater management for proposed and existing development. Conservation Districts in Rhode Island serve mainly and advisory role and have no regulatory, enforcement, or fee-charging authority.

Funding for Rhode Island's Conservation Districts comes chiefly from fundraising activities, such as seedling sales. In addition, the United States Department of Agriculture (USDA) provides technical assistance to each district in the form of USDA-paid district conservationists, of which there are currently five in Rhode Island. The State of Rhode Island also supplied a small amount of funding in FY88, approximately $11,000 per district for use in conjunction with site inspections for development. However, no additional funding was provided in FY89 due to the removal of a $60,000 line item, also intended for site reviews, that had appeared in a preliminary DEM budget submission.

Conservation Districts also receive extremely limited funding on an ad hoc basis from some of the cities and towns whom they serve. In recent years, the Districts have become more aggressive in requesting remuneration, but municipalities have been reluctant to fund what they have come to regard as traditionally free services. Moreover, most cities and towns use District services sporadically rather than as part of an on-going stormwater management, sediment control, or soil erosion strategy. Thus, they fail to see the need for a standard compensation policy on their parts. Table 25 lists municipal contributions to Conservation Districts for 1988.

TABLE 25

1988 CONTRIBUTIONS BY RHODE ISLAND CITIES AND TOWNS TO CONSERVATION DISTRICTS	
Eastern District:	
Little Compton	$500
Warren	$1000
Middletown	$3000
Southern District:	
South Kingstown	$695
West Warwick	$100
Charlestown	$144
Northern District:	
Smithfield	$250

Rhode Island's Conservation Districts represent a potentially excellent source of technical and administrative expertise for oversight of coordinated stormwater and soil erosion control practices crucial to an estuary maintenance program. Major changes would need to occur, however, to ensure adequate funding and the necessary authority for Districts to be effective in this role. These changes would mainly involve broadening District mandates to include regulatory and enforcement authority for the ordinances it would administer. This would include the authority to charge site inspection fees of developers and to levy fines and penalties for failure to conform to regulations. Arrangements of this sort currently function very well both in New Jersey, Delaware, and certain counties in Maryland.

In 1975, the State of New Jersey passed the Soil Erosion Act which established minimum standards for soil erosion and sedimentation control and required, among other things, that an acceptable sediment control plan be in place prior to the start of any construction activity disturbing over 5,000 square feet of soil.[8] The law specified as well that no state funds were to be provided to fulfill this requirement, but that user fees instead were to provide full funding.

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[8]The State of Rhode Island has passed enabling legislation that allows local governments to develop and adopt soil erosion and sediment control ordinances, and has even supplied a model ordinance to facilitate the drafting process. These ordinances typically specify design and performance standards for stormwater management, soil erosion, and sediment control both during and after construction. At present, fourteen Rhode Island cities and towns have adopted soil erosion ordinances, another fourteen are planning them, and three do not plan any but include soil erosion and sediment control provisions in their zoning and subdivision codes.

The responsibility for overseeing this law was placed with the state's 16 Conservation Districts, quasi-state organizations charged with a variety of resource conservation responsibilities.

Conservation District services under the Urban Soil Erosion Control Program are divided into (1) Review and Certification Procedures and (2) Site Inspections. During the Review and Certification phase, specially trained District employees review site plans for adequacy of stormwater management, sediment, and erosion control techniques. Technical advice is provided when needed to bring substandard plans to acceptable levels. Upon being found satisfactory, staff meets with the District Board of Supervisors to recommend issuance of a Certificate of Compliance, receipt of which is in turn a prerequisite to issuance of a construction permit. Once construction has begun, District staff make periodic site inspections as necessary both to ensure compliance with interim erosion control techniques required during construction and to make sure that the long-term erosion and sediment control techniques included in the site plan are correctly implemented.

New Jersey's Conservation Districts have been endowed with significant powers to enforce the erosion control statutes they administer. Two remedies are chiefly used for noncompliance:

- **Stop Work orders.** Conservation Districts have the authority to issue stop work orders when needed, although this is not a preferred route because of the possibility of resulting legal entanglements. Generally this is done only for off-site erosion control problems occurring during construction, and usually the threat of District action is enough to secure compliance.

- **Witholding Certificates of Compliance.** By law, completed construction in New Jersey must receive a Certificate of Compliance from the applicable Conservation District before a Certificate of Occupancy may be obtained. Conservation Districts will not issue these until a final inspection has confirmed that stormwater, soil erosion, and sediment control procedures included in the site plan have been correctly implemented.

The Soil Erosion Act of 1975 specified that these activities must receive all their financial support from user fees and none from State sources. This has resulted in the careful development of a fee structure based on several factors, including:

- the size of the area of disturbance;

- the category of construction (e.g., single family subdivision, townhouse, land grading only, etc.); and

- the expected duration of construction activity.

Fees charged developers for District services can range from $125 for a single family home to

$11,000 for a subdivision. Fees for the same service can vary among Districts in response to the costs of doing business. The idea is to set fees for each job which reflect the amount of District resources required to comply with state law.

Proper financial management is performed by means of a system of accounts that ensures that application fees for individual jobs are adequate (i.e., including all reviews and inspections required throughout the project's duration). This requires careful planning, as some projects have lasted as long as eight years, and fees, once established, cannot be readjusted if shown to be too low. As part of these strict financial management practices to ensue proper use of user fees and full self-funding, District employees working in the Urban Erosion Control Program are not permitted to work on other District activities, such as the traditional conservation assistance to farmers, etc.

One District contacted for this study, whose jurisdiction includes all of Huntingdon County, New Jersey, operates its Urban Soil Erosion Program on an annual budget of $270,000 raised entirely through user fees except for a roughly $10,000 annual contribution from the county it serves. This budget covers a full-time staff of 3 inspectors, 2 plan reviewers, and one clerk, as well as part-time assistance from four other District staffers.

Stormwater Management Utilities

In the past two decades, financing for solid waste management, water, and wastewater services has shifted to user fee systems in many areas. Stormwater management, however, has largely remained a local general fund program. This too is now changing. Recent trends in land development and environmental management practices have increased the need for proper stormwater management techniques. Already facing limited budgets, local governments have been forced to look to other sources for adequate revenue to support such programs. User fee financing, already successful for water and wastewater facilities, offers a workable funding alternative for stormwater management facilities.

Land development and urban redevelopment usually increase stormwater runoff by creating impermeable areas and changing natural drainage ways. The burden of managing this increased runoff falls mostly on local governments, which have traditionally relied on property tax funds to construct, operate, and maintain stormwater management facilities. Financing public works improvements from the property tax base, whether for stormwater or other needs, has faced increased public resistance in the last decade. The message of recent tax rebellions is that alternative funding means must be found. An effective alternative for stormwater management finance is the creation of a stormwater utility, which relies on user fees rather than tax revenues for funding.

In recent years, stormwater management utilities have been forming very rapidly. It is unclear how many currently operate in the United States, but for example, since 1986, 18 have come into existence in the State of Florida alone with others scheduled to come on line soon. Most public works officials agree that the utility approach is the best way to finance stormwater management. The main reason for their preference is obvious: utilities can generate stable and secure funds. Another important factor, however, is that many officials believe that the utility approach, where user charges are based on one's contribution to the problem, is more equitable than general fund financing from property or income taxes. The American Public Works Association (APWA) has concluded that:

> The user charge and the utility concept are the most dependable and equitable approaches available to local government for financing stormwater management. [9]

As with water and wastewater services, the utility system is user-oriented, with costs allocated according to services received, to the extent these can be identified. Each parcel of land within the utility is assessed a charge based on its stormwater runoff contribution as determined by size, terrain, impervious or paved area, and other characteristics. The idea is to relate user charges to a given individual parcel's stormwater contribution in excess of that contributed in its natural state. With the utility approach, the benefits of stormwater management

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[9]American Public Works Association, Urban Stormwater Management. Special Report No. 49, p. 263.

are deemphasized, and emphasis is placed on the cause of the problem. Individual property owners are viewed as generators, and the role of government is to control the discharges. To finance the government's activities, property owners pay user charges in amounts proportionate to their discharges. The rationale for the utility approach, therefore, is the "polluter pays" principle. Neither property values and ability to pay nor perceived benefits and willingness to pay are generally considered.

Although all stormwater utilities exist to manage stormwater runoff, great variety occurs in their administrative structures, rate systems, scopes of authority, and even environmental orientation. For the most part, when management objectives are clearly known at the outset of utility design, just about any may be accommodated within the utility structure. To illustrate the diversity found among stormwater utilities in the United States, it is instructive to compare two utilities reflecting nearly opposite approaches among structural and functional arrangements. The comparison is not intended to promote one system over another, but to demonstrate the flexibility and variety available to policy makers in designing a utility. Elements of one approach or another are clearly desirable, however, depending upon the policy objectives being pursued. Table 23 summarizes the major differences between two actual utilities, those of Bellevue, Washington, and Tallahassee, Florida.

TABLE 23

BELLEVUE, WASHINGTON	TALLAHASSEE, FLORIDA
An independent utility and authority.	A division of the city's Public Works Department.
Leveraged fund.	Pay-as-you-go system.
Monthly rate for typical quarter acre residential lot: $4.00.	Monthly rate for all residential lots: $1.00 (NB: Capital improvements not yet being funded, making expenses relatively low).
Parcel rates based on parcel size and extent of alteration to natural hydrogeology (e.g., grading, impervious features).	Flat residential rates, regardless of parcel size, grading, or percentage of impervious surface.
Financial incentives for individual stormwater management and runoff reduction activities.	No incentives for individual stormwater management or runoff reduction activities.
Actual per-parcel runoff contribution measured through assessor's property records and site visits as needed.	Estimated per-parcel runoff derived by random statistical sampling of 170 residential parcels (out of 21,000 total).
Permit oversight authority for activities affecting storm and surface water runoff.	No such authority. Permitting handled by other agencies.
Both flood control and water quality concerns addressed.	Focus on flood control only.

As evidenced by their proliferation, storm and surface water utilities are excellent tools for financing proper runoff management techniques, soon to become a major municipal concern as the U.S. Environmental Protection Agency's stormwater discharge rules take effect. Properly designed, such utilities may have the added benefits of encouraging systematic long-term perspectives for stormwater master planning, affording superior compliance monitoring in conjunction with a master drainage plan, and providing incentives for responsible and informed land use decisions by citizens and developers.[10]

[10]The process of stormwater utility development, including case studies of the Bellevue, Washington and Tallahassee, Florida utilities and creation of a regionally based utility in Rhode Island, is discussed in The Stormwater Management Utility: A Guide to Planning for the Narrow River Watershed, Rhode Island, available through the Narragansett Bay Project, Rhode Island Department of Environmental Management.

Affinity License Plate

The State of Florida is one of several states (Georgia and South Carolina are others) that have had significant fundraising success with "affinity" license plates. In addition to its standard-issue automobile tag, Florida offers 5 commemorative styles, including:

- the Space Shuttle "Challenger";
- the Florida panther;
- the Florida manatee;
- "Florida Salutes Veterans;" and
- the Florida collegiate tag.

Under Florida's program, possessors of these tags pay an annual (i.e. recurring) premium ranging from $15 to $25, depending on the tag chosen, in addition to regular annual automobile registration fees. Proceeds from these premiums are then used to support related causes. Those from the Challenger license plate, for instance, accrue to 3 trust funds, one for an astronaut memorial, one for technological research, and one for educational scholarships.

These tags have proven a successful way to capitalize on public support for popular causes and possibly generate even more, especially when they are colorful, distinctive, and attractive. The Florida Challenger license plate is noteworthy for two reasons: (1) it commemorates an event of tremendous emotional significance to Florida residents and (2) it features an extremely brilliant and colorful graphic resembling a sunset.[11] Out of a possible 9.8 million passenger cars and light trucks, the only vehicles eligible to purchase commemorative tags, over 300,000 Challenger plates alone have been since their initial offering almost 3 years. Some of these have been renewed several times as well, bringing in $15 apiece each year. Collections from the $15 premium have totalled $12,394,779 between January 1987 and November 1989, slightly more than $4 million per year. Florida officials feel, however, that there are too many affinity tags being offered now, limiting the revenues each brings in.

The affinity license plate may be a good idea for Narragansett Bay fundraising, as the Bay is an extremely popular cause (also the victim of recent tragedy in the way of oil spills) and a beautiful regional attraction that Rhode Islanders may wish to "brag" about. Furthermore, Rhode Island's present license plate is remarkably drab, although the Department of Motor Vehicles is currently gearing up to issue a new plate that is apparently more decorative. No other affinity tags are currently being offered in Rhode Island, an important factor in such a small state. However, one is scheduled for release in 1991 or 1992 commemorating the University of Rhode

[11]A sample of this license plate has been ordered for the Narragansett Bay Project.

Island's centennium. It will be permitted to be displayed for one year only. Each tag will bring in a premium of $40 for the University's endowment. Rhode Island's only other experience with affinity tags is the War Veteran plate of several years ago. Because sales were far lower than expected, this tag proved an expensive mistake, costing the state roughly $500 for each one sold. As in Florida, Rhode Island's license plates are manufactured through the penal system and production costs are consequently low.

Ultimately, any such affinity plates must be authorized by the Rhode Island General Assembly. For more information on developing such a program in Rhode Island, contact Jim Gibbs, (401) 277-6900, or Elaine Phillips, (401) 277-6514, both at the Rhode Island Department of Motor Vehicles. In addition, Ambrose Murphy, (617) 332-7380 or (617) 558-7393, an area manager for the 3-M Company that makes the decals used to print Rhode Island's license plates and who thus has an interest in developing such a tag, may be a helpful contact, particularly in assisting with "free lobbying" of the General Assembly. In Florida, Jack Pelham, (904) 488-4322, is familiar with program details and Wanda Tillman, (904) 488-0200, with revenue collections.

Affinity Credit Card

A number of organizations have had fundraising success through the use of affinity credit cards offered by a financial institution under contract to the organization. Under most arrangements, the sponsoring organization typically receives a small percentage (5-10%) of the annual membership fee paid by card holders, as well as a percentage (often .5%) of all sales volume recorded with the card. An organization wishing to sponsor an affinity card is usually required first to produce a rather lengthy mailing list screened to include only persons with a demonstrated interest in the organization, to whom the card may be offered. Financial institutions differ in their length requirements for this list, but major affinity card issuers (e.g., MBNA through Transnational Bank in Boston, (800) 262-6628) can require as many as 10,000 names and addresses. These must be individuals who have a demonstrated interest in or affiliation with the sponsoring organization. Examples include organizations such as the Shriners (on a statewide basis) or the National Audubon Society.

In an interesting public finance innovation, the State of Montana recently attempted to reduce its budget deficit by offering such a card to all residents. Its plans were to use the tax roll from the state's individual income tax as its mailing list (roughly 360,000 entries), but the project failed to attract bids from any card issuing banks contacted. Montana appears to be saturated with such cards, according to one contact in the state's finance office. At this point, there are no further plans to continue with this project.

Essential to the success of such a card are an unsaturated market and a popular cause. According to a cursory search, it appears that the Narragansett Bay region is not saturated with such cards and thus may be a good candidate for sponsorship. It is not clear where an acceptable mailing list of proven customers might be secured. It may be that if such a card were sponsored by a local bank familiar with the Bay's ubiquitous popularity, rather than by one of the industry giants, the requirements for such a list might be less stringent. For example, the list may be partially drawn from the list of purchasers of a Narragansett Bay affinity license plate, should one be offered and state law permit the circulation of such a list to a commercial cause.

It is unclear how much revenue could be raised from such a card, but estimates range from $8-9 per card per year, assuming an annual sales level of approximately $1700 per account, plus some portion of the annual membership fee. Ultimately, an organization to formally sponsor the card and manage its revenues on behalf of the Bay would need to be created.

Income Tax Check-Offs

The State of Rhode Island offers a program wherein a portion of an individual's state income tax refund or a voluntary individual contribution in addition to any taxes due may be designated for one of several funds. In 1988, these funds and their respective collections were as follows:

TABLE 24

1988 INCOME TAX CHECK-OFF COLLECTIONS	
FUND	1988 COLLECTION
Non-game Wildlife	$23,500
Arts and Tourism Development	27,213
U.S. Olympic Committee	49,405
Organ Transplants	49,908
Political Contributions	
Democratic	39,658
Non-partisan	160,572
Republican	162,086

Income tax check-offs are only about 6 years old in Rhode Island. Thus far they have been a fairly small and erratic source of funds for the causes they represent. Moreover, each additional tax check-off permitted detracts from potential support for existing funds. Thus, if a fund were attempted for estuary-related causes, it is possible that opposition from existing funds would arise. Nonetheless, an income tax check-off may be worth pursuing for the Narragansett Bay. Inquiries should be directed to the Personal Income Tax Unit of the Department of Administration's Taxation Office, (401) 277-3911.

State Revolving Fund

When the federal government decided to discontinue its construction grant program to municipalities for wastewater treatment facilities, it authorized the creation of State Revolving Funds to provide financial assistance to local governments for the construction of wastewater treatment facilities and other selected activities. State Revolving Funds (SRFs) are loan funds that provide project financing to local governments at favorable interest rates, which funds are then re-lent as loan repayments are made. Thus, rather that the massive annual federal outlays characteristic of the Construction Grants program, SRFs are designed to be independently self-sustaining. Once a state has created a program that satisfies federal requirements, the federal government provides an initial infusion of capital, with a state matching requirement.

The State of Rhode Island has nearly completed the steps required by the federal government to obtain federal funds for its State Revolving Fund. The Clean Water Protection Finance Agency which will manage the SRF was recently authorized by the General Assembly.[12] Although it lacks a Chairman and Executive Director, five Board members have been named and its basic format and operating policies have been determined. It appears that the SRF will make loans to communities at a subsidized interest rate of 4% which will mature 20 years after project completion date.

Capital Funding Needs

The total water quality financing needs for Rhode Island are estimated to be between $600 million and $1.5 billion (current dollars) through the year 2005. The estimate's broad range is a function of the difficulty in estimating the need for replacement and rehabilitation of wastewater treatment facilities. A breakdown of capital funding needs appears in Table 25. As indicated, the needs for § 319 and 320 programs are estimated to be $30.6 million and $51.3 million, respectively, between 1992 and 1998. These estimates, too, are subject to change inasmuch as neither the Comprehensive Conservation and Management Plan nor the nonpoint source (NPS) work plan have yet been developed.

[12]The Department of Environmental Management will maintain responsibility to determine funding priorities and approve project financing.

TABLE 25

WATER QUALITY CAPITAL FUNDING NEEDS BY CATEGORY ($ MILLIONS)	
Secondary Wastewater Treatment	$571.4
New Sewering	283.3
Combined Sewer Overflow Retrofits	216.3
Advanced Wastewater Treatment	214.0
Replacement/Rehabilitation of Sewers	68.8
Marine and Estuarine Needs (§ 320)	51.3
Sludge	35.0
Nonpoint Source Needs (§ 319)	30.6

Source: Smith Barney, Harris Upham & Co., "Rhode Island Department of Environmental Management Wastewater Construction Needs," April, 1989.

SRF Capitalization

The SRF is expected to receive its first federal capitalization grant by September 1990. The maximum federal contribution under Title VI of the Clean Water Act is $57 million between 1989 and 1994, but Congress is expected to appropriate only 80% of that amount. The state's match totals approximately $11 million, roughly $7 million of which will come from the Rhode Island Clean Water Act Environmental Trust Fund and the remainder from $40 million in general obligation bonds to be voted on during the November 1990 ballot. These bonds will also provide funds for the state's overmatch and $1 million for NPS activities. Assuming approval of these bonds, the total SRF capitalization will be $103 million.

Conclusion

Under these circumstances, the SRF is expected to be able to fund $227 million in water quality actions by 2005. For that year, cumulative funding needs are estimated between $600 million and $1.47 billion, far outstripping the SRF's funding potential, effectively precluding any significant funding for implementing the Narragansett Bay Project's directives. However, since those communities with the highest wastewater treatment needs are all located on the Bay, considerable benefit should redound to the Bay as those needs are met.

TAX CREDITS AND BOND ISSUES IN RHODE ISLAND

Tax Credit for Investment in Pretreatment Equipment

The State of Rhode Island offers tax credits for initial investments in pretreatment equipment and supplies. To qualify for such credits, a firm must first have the design plans for its system stamped by a professional engineer, this in order to discourage both inadequate treatment as well as "overadequate" treatment instead of source reduction. Proper installation and operation of the system is then verified through an inspection by local sewer authorities. When these steps have been satisfied, a request may be made to DEM's Pretreatment Section to issue an Order of Approval for Tax Credit, which would be included by the firm with its next tax filing to the State.

Restrictions on this program allow credits only for equipment and related supplies for the first year of pretreatment activity. Routine supplies, chemicals, and maintenance thereafter are not eligible, as are not building and land costs associated with pretreatment. Pretreatment systems need not be technologically complicated to qualify -- a simple pH adjuster can be sufficient in some cases.

The pretreatment tax credit has not been widely used by pretreaters, perhaps because of the requirement that system design plans be reviewed and stamped by a professional engineer. It appears that many industries required to pretreat purchase packaged, ready-to-install systems which do not come with any plans that could be stamped.

Contact: Gina Freedman, DEM Pretreatment Section, (401) 277-6519

Water Resources Board: Water Supply Fee

In January, 1989, Rhode Island began charging water suppliers a fee of 1¢ per hundred gallons of water sold from public water supplies. Assuming an inelastic demand for water, this fee is expected to generate $3.3 million per year. As of February, 1990, $500,000 has been collected, but it is not clear how much of actual annual revenues this represents, given the infrequent nature of water utility billing (annually or biannually), as well as lags and discrepancies between billing and collection. It is expected to take 1.5 to 2 years from the institution of this fee for its annual collection to be known with any confidence.

The funds collected through this fee will be used chiefly for watershed and wellhead protection measures. Ten percent of the revenues generated from this fee will be provided to the water suppliers in proportion to their fee collections. The remaining 90% will accrue for at least one year, but ultimately until it has reached an amount sufficient to collateralize bonds, the proceeds from which will be returned to water suppliers in proportion to their fee collections.

The water suppliers must use at least 55% of the bond proceeds they receive for land acquisition, either watershed protection for surface water, or wellhead protection for groundwater. The remaining 45% may be used at their discretion for any investment in water quality improvements other than routine maintenance items. One water supplier plans, for instance, to install closed pipe in place of an open diversion area at its storage and treatment works.

The State of Rhode Island, however, has provided an incentive for even greater investment in land acquisition in the form of a $10 million bond authorized in November, 1988, which will be provide a 1-to-1 match for every dollar above the water supplier's 55% requirement spent on land acquisition portion.

It is interesting to note that the Governor's office, the sponsor of this fee, requested an opinion of the State Supreme Court as to whether or not the 1¢ charge constituted a surcharge (i.e., a cost of service) or a tax. It was determined to be a surcharge; had it been a tax, a referendum would have been necessary to secure public approval, inasmuch as it would have been a tax on publicly-owned properties for the purpose of supporting a bond issue. Taxes whose revenues will be used to repay a bond (i.e. a debt with a life longer than the yearly appropriation cycle) of greater than $50,000 require public referenda before adoption.

A current legislative proposal would increase the surcharge an additional 3¢ per hundred gallons with the incremental revenues to be used for water pollution control improvements concerning rivers and streams. It is unclear whether or not this revenue would be considered a fee or a tax, as discussed above; the line between the two is considered very fine.

Contact: Peter Calese (401) 277-2217

Rhode Island Aqua Fund
Chapter 443 - P.L. of 1988
$15,000,000 Approved for Bonding
$15,000,000 Unissued

Uses:

- $250,000 for State implementation and administration of anti-pollution procedures, including pretreatment, sediment and sludge abatement, urban nonpoint source control, and community sewer adequacy forecasts;

- $750,000 for State development of a prototype implementation project for the above anti-pollution projects;

- $7,000,000 for State matching funds and/or grants to cities and towns for wastewater treatment projects;

- $4,000,000 for State revolving low-interest loans to cities, towns, and certain private entities for pretreatment, pretreatment facilities, pretreatment equipment. Funds will also be used for monitoring enforcement and administration of those facilities.

- $3,000,000 for revolving low-interest loans ($1,500,000) and for grants and administration ($1,500,000) to communities for urban nonpoint source prevention programs.

Selection of a committee to administer the fund has been completed and approved. Rules and regulations have been promulgated and presented at a public hearing and should be in effect by March 12, 1990. It is expected that applications will be due by March 21 for disbursement of 10% of the bond funds from each use category.

Contact:

Michele Musselman, DEM, 277-3961.

Hazardous Waste Reduction and Recycling Development Bond
Chapter 399 - P.L. of 1986
$2,000,000 Approved for Bonding

Use:

- $2,000,000 for grants to communities and individuals for innovative hazardous waste reduction and recycling technologies, including pretreatment. Approximately $1,000,000 already spent as of March 1989.

Contact: Victor Bell, DEM Environmental Coordination, 277-3434

Rhode Island Clean Water Act Environmental Trust Fund
Chapter 289 - P.L. of 1986
$35,000,000 Approved for Bonding
$32,500,000 Unissued

Uses:

- $28,000,000 to provide the State match (15%) to complete all Clean Water Act Title 2 wastewater treatment facility upgrades on the priority list, and to accommodate as many Title 6 State matches (20%) as the remaining funds permit. Currently, $18,103,000 obligated. Of the remaining $9,812,000:

  $1,918,205 budgeted for FY88-90 Title 2 15% match;

  5,557,990 budgeted for FY89-93 Title 6 20% match;

  2,426,313 unbudgeted, will be used for Title 6 matches.

  These amounts are based on the President's FY90 Budget and may be subject to change. In any case, the Title 6 priority list will need to be re-ranked under the new SRF law, at which point a community's readiness to proceed with a project will be among the ranking factors. Contact: Craig McLaughlin, 277-3961.

- $ 5,000,000 for grants and revolving loans to government entities for interceptor sewers to extend to areas which should no longer be served solely by ISDS. Rules and regulations expected to be completed by June. Most likely, the entire amount will be used for 50% grants to communities since past loan programs have not been as well received. Contact: Ray Pena, 277-3961.

- $1,500,000 for low-interest loans (1.5 points below prime) to businesses for hazardous waste pretreatment. Rules and regulations have been written, and the state now is seeking a firm to administer the loans. Contact: Eugene Pepper, 277-3434.

Sewer and Water Supply Failure Fund
Chapter 420 - P.L. of 1984
$5,000,000 Approved for Bonding
$4,000,000 Unissued

Uses:

- $4,100,000 in grants to municipalities for 50% of eligible project costs for (1) extending public sewers to areas of documented multiple ISDS failure or (2) extending public water to areas of documented multiple well contamination. As of April, 1989, $853,000 in unobligated grant funds remained, but $962,000 in pending grant obligations were being studied. Any unspent portions of obligations are returned to this fund for reobligation, and as the estimates upon which obligations are made are frequently high, additional funds may become available.

- $900,000 in loans to owner-inhabitants of single family housing for replacement and rehabilitation of failing ISDS. Interest rates and loan terms range from 5% over 15 years to 7% over 10 years, depending upon income level, and are available for 100% of project costs. All income levels are eligible to receive loans. As of March, 1989, $468,000 remained to be loaned. Contact: Stephanie Powell 277-3162.

Agricultural Land Preservation
Chapter 367, Public Law of 1985
$2,000,000 Approved for Bonding
$1,420,000 Unissued

Use:

- $2,000,000 intended for State use to purchase farm development rights from landowners. All funds obligated. Contact: David Holt, 277-2776.

Open Space Acquisition
Chapter 425 - P.L. of 1987
$65,000,000 Approved for Bonding
$37,200,000 Unissued

Uses:

- $22.5 million for 75% grants to cities and towns for open space acquisition -- all committed.
- $5.2 million for open space acquisition grants to eight specific cities -- all committed.
- $4.5 million in grants to distressed communities -- 100% grants for land acquisition, and 75% grants for development -- all committed.
- $18 million to cities for 50% grants for recreation development -- $9.88 million committed.
- $9.5 million for state use in open space recreation and acquisition -- none committed, but may be reshuffled to other projects.

In summary, roughly $8 million in the form of 50% grants is still available to cities and towns for recreational construction and development. Perhaps this money could serve as an inducement to areas to provide open space for development of recreational facilities while at the same time providing nonpoint source control.

Also, $9.5 million is available for state use in acquiring open space.

Contact: David Holt, 277-2776.

Heritage Capital Development ("Heritage Preservation")
Chapter 369 - P.L. of 1985
$9,000,000 Approved for Bonding
$5,720,000 Unissued

Use:

- $9,000,000 for purchase of open space adjacent to State-owned lands. $35,000 was uncommitted as of March 1989.

Contact: David Holt, 277-2776.

Environmental Management Bond
Ch. 419 - P.L. of 1986
$16,000,000 Approved for Bonding
$12,380,000 Unissued

Uses:

- $8 million for state acquisition of open space -- all spent.
- $3 million for state purchase of development rights from farmers -- all committed.
- $5 million to cities and towns for 80% grants to acquire open space -- $1 million uncommitted, and applications being accepted until June 1, 1989.

In summary, only $1 million in the form of 80% grants to cities and towns for open space acquisition remains uncommitted, and the application deadline for these funds is imminent. Any unspent balances would revert to this fund for re-commitment.

David Holt, 277-2776

Environmental Management
Ch 449 - P.L. of 1988
$2,000,000 Approved for Bonding
$2,000,000 Unissued

Use:

- $2,000,000 for use in acquiring farmland development rights, which allow a farm to remain titled to current owner and be freely resold, but restrict all subsequent use to agricultural purposes. As of May 1989, none of these funds had been committed, although it appeared that the Farm Commission was nearing the purchase of development rights for 2 to 3 properties. Should these sales occur, there would still be uncommitted funds from this bond.

Contact: David Holt, 277-2776.

Rhode Island Housing and Mortgage Finance Corporation
Low-Interest ISDS Retrofit/Replacement Loans
$5,000,000 Loan Pool

Use:

- Funding for this loan pool comes from $350,000,000 State mortgage revenue bond issue. Currently, $5,000,000 is available to lend for home repairs, but the pool will be replenished as needed. Among other possible uses, these funds provide low interest loans to moderate income homeowners for ISDS retrofits or replacements required to bring their homes up to State housing code standards. Loan funds may also be used for those expenses occurring on the borrower's land which are incurred while tying into the public sewers. Off-property expenses are not eligible.

  These loans are currently available to residents of all cities and towns except Little Compton and Richmond, and are expected to be made available to these area soon. Maximum loan size is $15,000, repayable over fifteen years. Interest rates vary with applicant's income level:

  5.9% if income is 80% of state median income

  8.9% if income is 81-115% of state median income

  Loan arrangements are made through the local area housing office serving the property in question, typically an apparatus of the local government.

Contact: Dan Healy, 751-5566
Jeffrey Marchand, South County CAP Agency, 789-3016

Coastal Community Assistance Program Grants

This grant program uses funds from Section 306 of the Coastal Zone Management Act to provide 75% funding to communities for restoration, protection, or revitalization of coastal areas. Grants are made on a competitive basis. Total grants made have ranged between $90,000 and $100,000 during each of the past few fiscal years. It is not clear whether or not funds for this program will be available during the next fiscal year.

Examples of past grants:

- Portsmouth: $8,000 for construction of a bathhouse at Sandy Point.
- University of Rhode Island: Grant to John Boothwright for study of effects of sea level rise.
- Warren: Grant for new fishing deck.
- Newport: Grant to restore Rose Island Light House.

Public-Private Partnerships for Wastewater Treatment Services

As communities across the country have faced the high costs of building environmental projects and reduced availability of federal funds, a search has begun for alterative approaches of project construction and finance. Some communities have found that cooperation between the public and private sector has facilitated completion of needed environmental projects. These public-private partnerships are defined as any arrangement in which responsibility is shared for at least one stage of an environmental project: proposal, selection, financing, design, construction, ownership, or operation. Greater private involvement can increase public resources in at least two ways:

- Private equity can free municipal resources for other investments, and
- Properly designed and executed partnerships can provide improved environmental services at the lowest possible cost to the public.

When properly structured and matched to local needs, public-private partnerships offer benefits to all of their participants.[13] Ideally, they provide competitive economic returns to the private partners while delivering high-quality environmental services at reasonable costs to users. Municipalities have pursued a variety of partnership arrangements for the following reasons:

- Reduced costs. Savings result from the freedom from competitive bidding and the paperwork associated with intergovernmental grants, as well as design/construct/operate efficiencies and private access to new low-cost technologies. While the literature is more rhetorical than analytical, limited estimates of combined capital and operating cost savings compared to public provision of services vary from 5% to 40%.
- Rapid Project Completion. Faster start-up is due in large part to the avoidance of competitive bidding and contracting constraints.
- Guaranteed Performance. Any of the public-private partnership arrangements that involve private operation generally shift from the public to the private sector the responsibilities for environmental permitting, proper operation and maintenance, compliance with all applicable environmental regulations, and adequate

[13]A useful reference for municipal officials is Public-Private Partnership Case Studies: Profiles of Success in Providing Environmental Services, U.S. Environmental Protection Agency, Resources Management Division, September 1989. Copies may be obtained by calling (202) 475-8227.

environmental sampling and effluent monitoring. This represents a primary benefit, especially in small communities.

- Preservation of Jobs. Many communities consider private partnerships as a way to reduce high operating expenses while maintaining jobs. In most public-private arrangements, the private partner guarantees the jobs of existing municipal. Hence, jobs that might have been lost to cutbacks can be preserved under privatization.

The traditional procurement process for environmental projects, such as wastewater treatment facilities, is a three-step procurement process. This process was developed by the Environmental Protection Agency over the last twenty years to provide check points for the flow of federal grants to municipally owned wastewater treatment plants. The three steps in this process are planning, design, and competitively bid construction contracts. EPA or state review occurs at each step along the way.

This procurement process was designed to ensure that the money provided by the Federal Construction Grant Program was well spent. The procurement process also resulted in increased costs of wastewater facilities due to the costs of complying with EPA's regulations and with separate state contracting laws. Typical requirements included compliance with Davis/Bacon prevailing wage rules and a requirement that construction contacts be let via issuance of numerous small contracts rather than one large contract. Oversizing of project and "gold plating" also added to project costs under the Construction Grant Program.

Public-Private partnership can achieve cost savings over projects built under EPA Construction Grant Program regulations. Prior to 1986, cost savings of up to 40 percent could be achieved. These cost savings were the result of design-build construction processes which are more efficient than EPA's 3-step procurement process and of tax credits and accelerated deprecation which provided incentives to the private sector to invest in wastewater facilities. A number of projects were completed through public-private partnerships during this era.

The cost savings which can be achieved through public-private partnerships since the Tax Reform Act of 1986 have been reduced due to the removal of tax credits and accelerated depreciation from the tax laws. A realistic expectation for cost savings from public-private partnerships developed after 1986 is 10 to 15 percent, with 20 percent savings an upper bound in most cases. Furthermore, none of the public-private partnerships built since 1986 have included cash equity in any of the wastewater facilities constructed. The interest in public-private partnerships has also declined since 1986. Nevertheless, some projects are underway which were initiated after the 1986 tax reform. These projects typically include construction of a wastewater treatment facility by a private firm for a fixed price coupled with a cash-backed plant operation agreement for up to 20 years. Typically, financing is provided by the public agency.

Two factors are key to the success of public-private partnerships:

- Availability of public financing for turnkey (design-build-operate) projects;
- Cooperative state officials.

Since the tax incentives for private firms to invest in wastewater facilities were removed in the Tax Reform Act of 1986, public financing of public-private partnership projects is essential to the success of such ventures. While the federal State Revolving Fund legislation does not allow private ownership of facilities, the legislation does allow a municipality to obtain funding for up to 80 percent of the project from a SRF for a turnkey project, which can include an operating agreement for up to five years under strict performance guarantees. In order for a local project to make use of these provisions in the federal law, however, the state's State Revolving Fund program must adopt rules which allow funding for turnkey projects.

Adopting rules for the State Revolving Fund program which are flexible enough to allow financing of projects built through turnkey contracts requires the cooperation of state officials. Perhaps the most important change in the contracting procedure needed is to drop the requirement that design drawings be completed before loan funds are provided to municipalities. Such provisions prevent municipalities from using these loans for fast-track turnkey projects with private firms. Under the old system, state staff (or EPA staff in some cases) reviewed plans and specifications to determine their cost effectiveness before construction began. For public-private partnerships to achieve their full potential, it will be necessary for state staff to drop this requirement for turnkey projects and substitute other requirements which will not impede design-build efforts.

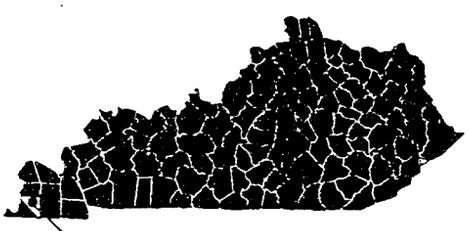
If an SRF program is structured to allow municipalities to contract for turnkey facilities, the result could be lower cost financing for the municipalities and improved ability by the SRF to finance more projects.

Three examples of public-private partnership projects initiated after the 1986 changes in the tax law are wastewater facilities built in Mount Vernon, Illinois; Edgewater, New Jersey; and Clinton, Kentucky. In Edgewater, New Jersey, a six MGD secondary plant has been completed for $9.9 million. The original budget was expected to be $16 million if constructed under the guidelines for the EPA Construction Grants program. By using a public-private partnership instead of State Revolving Fund financing, the plant was completed sooner and at the same price as if a State Revolving Fund loan had been used. In Mount Vernon, Illinois, a secondary plant was built for $3 million less than the lowest cost public construction alternative. The plant was completed less than a year after the contract was signed with a construction firm. It is meeting BOD and effluent requirements by wide margins. The State of Kentucky has a wastewater privatization law which was used successfully by the community of Clinton, Kentucky to build a 3000 gallon per day wastewater treatment facility. The facility cost was 30 percent less than an EPA grant plant would have cost. The project was financed by the construction firm using the small town's bond anticipation notes. The following summaries of these three post-Tax Reform public-private partnerships for wastewater treatment services are presented for their possible applicability to the needs of Rhode Island.

WASTEWATER TREATMENT

Turnkey Contract

WASTEWATER TREATMENT PLANT
CLINTON, KENTUCKY



Clinton, Kentucky

- **The City of Clinton entered into a turnkey agreement with Aqua Corporation to upgrade and operate a wastewater treatment plant owned by the city**
- **Clinton issued tax-exempt bond anticipation notes to finance the project**
- **The private partner completed the project for 30% less than the estimated cost of public construction and grant financing**

SUMMARY

Under an order from EPA to upgrade its wastewater treatment system since 1981, Clinton faced fines from EPA if its treatment plant did not meet the secondary treatment standards of the Clean Water Act. The city was not high enough on the state priority list to be eligible for federal grants, so Clinton investigated alternatives. After the state passed a privatization act in 1986, Clinton contracted with a private company to upgrade (design and construction) and operate its wastewater treatment plant. The city retained ownership of the plant in order to obtain tax-exempt financing.

PARTIES INVOLVED AND TIMEFRAME

Public Partner (owner)	Clinton, Kentucky
Private Partner	The Aqua Corporation
Population	1,600 (1988)
Median Household Income	$13,080 (Hickman County, 1979)
Form of Government	Mayor/City Council
Project Initiated	September 1987
Project Compieted	July 1988
Total Capital Cost	$950,000

WHY WAS A PRIVATE PARTNER CHOSEN/ALTERNATIVES CONSIDERED?

- Private partner had the expertise to upgrade and operate the plant
- Clinton retained ownership to obtain tax-exempt financing

A small town with limited resources, Clinton was unable to raise the capital necessary to upgrade their wastewater plant. While plant expansion can often be financed from additional revenues generated by growth, plant upgrades often require large capital investments without any new sources of funds. Also, construction and operation of the new plant required technical expertise beyond that of the municipal staff.

The city had planned to finance the project with federal construction grants but when that was not possible, they began to look for a private company with the resources and technical expertise to construct and operate the plant. Clinton decided to retain ownership of the plant in order to obtain tax-exempt financing.

WHAT WERE THE FINANCING ARRANGEMENTS?

- Clinton issued tax-exempt bond anticipation notes backed by user fees
- The notes are for three years and can be renewed or long-term bonds can be issued upon maturity
- The city implemented a new rate policy to increase revenues

Clinton issued three-year, fixed-rate bond anticipation notes totalling $950,000 at a 6.95 percent interest rate to finance the project. To comply with state law, Clinton passed an ordinance declaring that ultimately they intended to issue bonds. Clinton chose to issue short-term notes because they wanted the security of a fixed rate. The purchasing bank agreed to a fixed rate for the short-term notes, but the bank would not offer a fixed rate for long-term bonds. Also, Clinton could issue short-term notes with lower upfront costs than long-term bonds.

Liberty Bank of Louisville purchased the notes, and in return, receives tax-exempt interest income. The 1986 Tax Reform Act provides that if a municipality issues less than $10 million a year in securities for public facilities, the interest is tax-exempt when they are purchased by a bank.

The notes are backed by user fees, which were set to pay off the debt over a 15-year period. Each time the three-year notes are renewed, the city and the bank can negotiate an interest rate to renew the notes through the bank, or the city can find another purchaser. Revenues from user fees allow Clinton to reduce the dollar amount of the notes when renewed.

The city implemented a new rate policy in October 1987. Previously, revenues for wastewater treatment were drawn from property taxes and a $36 yearly charge per customer for sewer service. Under the new system, sewer charges increased to a flat rate of $15 per month for residential customers. Commercial customers pay $15 per month for the first thousand gallons and $3.25 for each additional thousand gallons.

WHAT WERE THE PROCUREMENT ARRANGEMENTS?

- Clinton negotiated with Aqua Corporation in a sole-source procurement process

Because of prior experience working with engineers from Aqua Corporation, the city decided to negotiate with them in a sole-source procurement process. Clinton signed a contract with Aqua Corporation for design and construction to upgrade the plant and a 5-year service agreement for operation and maintenance.

WHAT WAS THE DIVISION OF RESPONSIBILITIES?

City of Clinton

- Own the wastewater treatment plant
- Issue bond anticipation notes to finance the project
- Collect user fees to cover debt service

The Aqua Corporation

- Assist Clinton to secure financing for the project
- Design, construct, and operate the wastewater plant
- Secure the environmental permits
- Comply with environmental permit requirements
- Guarantee performance of equipment

HOW WAS THE PROJECT IMPLEMENTED?

- State law authorized local governments to enter into turnkey contracts with private companies

The state legislature passed an act in 1986 enabling local governments to contract with private companies to own and/or operate water and wastewater treatment facilities. Clinton's project was the first wastewater system to be upgraded by a private partner pursuant to the law.

WHY WAS THE PROJECT SUCCESSFUL?

- Private construction and tax-exempt financing reduced the cost of the project

Clinton conducted a study as part of the process of applying for EPA construction grants that estimated the project cost at $1.3 million. Aqua Corporation upgraded the wastewater plant for only $950,000. Through upgrading the plant and private operation, Clinton solved its effluent quality problems.

LESSONS LEARNED

- Clinton could keep user charges down because of low cost of capital

Although sewer charges for residential customers increased to $15 per month, Clinton's user charge is low compared to similar sewer systems in the state. This was an important objective in Clinton because many of the residential customers are retired and on fixed incomes. By financing the project with short-term notes at a low fixed rate of interest, Clinton could keep sewer charges low. The city is considering lowering sewer charges at the beginning of 1990.

CONTACT

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WASTEWATER TREATMENT

Turnkey Contract

WASTEWATER TREATMENT PLANT
MOUNT VERNON, ILLINOIS

Mount Vernon, Illinois

- **Mount Vernon entered into a turnkey agreement with Environmental Management Corporation to design, construct, and operate an upgraded and expanded wastewater treatment plant owned by the city**
- **The city issued tax-exempt and taxable general obligation bonds to finance the project, which were guaranteed by a letter of credit from a Japanese bank**
- **The private partner completed the upgrade and expansion in substantially less time and saved the city approximately $3 million (32 percent) compared to the city's initial pay-as-you-go plan**

SUMMARY

The area around Mount Vernon was experiencing rapid growth due to the location of new automobile manufacturing plants. The auto plants attracted a large number of associated businesses interested in locating in Mount Vernon. It was necessary for the city to act quickly to take advantage of the opportunity for growth. However, the city was under a 1986 sewer connection ban because of compliance problems at its wastewater treatment plant.

To overcome sewer restrictions quickly, Mount Vernon contracted with Environmental Management Corporation (EMC) to design, construct, and operate an upgraded and expanded wastewater treatment plant. Sewer restrictions were lifted after the first phase of construction was completed. Within 18 months, the city attracted approximately $300 million in private investment.

PARTIES INVOLVED AND TIMEFRAME

Public Partner (owner)	Mount Vernon, Illinois
Private Partner	Environmental Management Corporation
Population	17,470 (1986)
Median Household Income	$13,171 (1979)
Form of Government	City Council/Manager
Project Initiated	June 1987
Project Completed	October 1988
Total Capital Cost	$6.5 million

WHY WAS A PRIVATE PARTNER CHOSEN/ALTERNATIVES CONSIDERED?

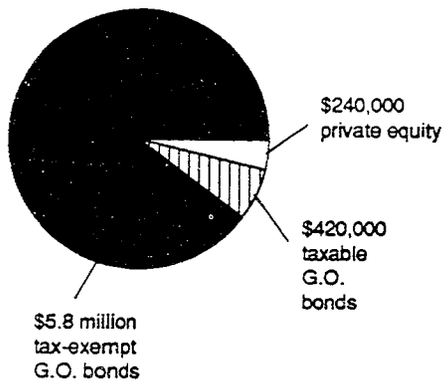
- Considered pay-as-you-go and federal grants but timing was critical
- Private partner proposed to complete the plant more quickly than public alternatives
- The city and EMC decided against private ownership

Mount Vernon contracted with EMC in 1984 to operate its wastewater treatment plant and to bring it into compliance with environmental regulations. However, the city needed to upgrade and expand the plant to come into full compliance. Mount Vernon passed a sales tax increase to finance a pay-as-you-go upgrade and expansion to be completed by 1994. The city also began working to obtain federal grants. However, the options chosen by the city could not be implemented quickly, so when EMC proposed to upgrade and expand the plant in a shorter time, the city accepted.

The city and the company jointly decided against the company's original proposal for private ownership, because of reduced tax benefits of private ownership after the 1986 Tax Reform Act and the potential that federal funds previously spent on the wastewater plant would have to be refunded. Public ownership allowed much of the cost of the project to be financed with tax-exempt bonds.

WHAT WERE THE FINANCING ARRANGEMENTS?

Total Capital Cost: $6.5 million



To finance upgrading and expansion of its wastewater treatment plant, the City of Mount Vernon issued 20-year tax-exempt general obligation bonds of $5.8 million and $420,000 of taxable general obligation bonds to pay project costs not eligible for tax-exempt financing. A Japanese bank issued a $6 million letter of credit to guarantee the bonds, raising the bond rating to AAA. EMC contributed $240,000 to finance the project.

The bonds are backed by the City of Mount Vernon, which pledged its full faith and credit and dedicated sales tax revenues to pay off the bonds. A previous 1/2 cent sales tax increase that the city passed for a pay-as-you-go upgrading of the wastewater plant now provides revenues to back the bonds.

The city could not use revenues from sewer charges to back the bonds because sewer charges were dedicated through 1994 to pay off bonds issued in 1975 to finance construction of the existing plant.

WHAT WERE THE PROCUREMENT ARRANGEMENTS?

- The city negotiated with a private partner in a sole-source procurement
- Fixed-price contract signed to upgrade and expand plant + 20-year service agreement

Through a sole-source procurement, the city signed a fixed-price contract with Environmental Management Corporation (EMC) to design and construct an upgraded and expanded wastewater treatment plant. When construction was completed, the city's contract with EMC to operate the existing plant was changed to a 20-year service agreement for EMC to operate and maintain the upgraded and expanded plant.

WHAT WAS THE DIVISION OF RESPONSIBILITIES?

City of Mount Vernon

- Own the wastewater treatment plant
- Issue general obligation bonds to finance the project
- Collect sales tax revenues and make monthly payments to EMC through a bond trustee
- Secure the environmental permits

Environmental Management Corporation (EMC)

- Design, construct, operate, and maintain the upgraded and expanded wastewater treatment plant
- Guarantee compliance with environmental permit requirements
- Guarantee performance of plant equipment
- Dispose of sludge
- Operate the city's existing wastewater plant during construction

HOW WAS THE PROJECT IMPLEMENTED?

- Mt. Vernon avoided conflicts with state procurement rules by voting for home rule
- EMC made preliminary proposal to Illinois EPA to avoid permitting delays

Because the city voted for home rule in 1986, it avoided conflicts with state procurement rules.

EMC worked with Illinois EPA before the agreement was signed to prove that its design would meet effluent requirements. As a result, the company helped the city avoid delays in permitting the project.

WHY WAS THE PROJECT SUCCESSFUL?

- Strong leadership by the mayor and public information campaign were important factors
- Sewer restrictions were lifted quickly
- City was not responsible for costs of change orders

Strong leadership by the mayor was important to the success of the project. The mayor insisted that negotiations be open to the public and that the public be kept informed. As a result, the community supported private sector involvement in the project.

Timing was critical for Mount Vernon because the city needed to solve its compliance problems quickly to accommodate new industry. Through negotiations with Illinois EPA, sewer restrictions were lifted after the first phase of construction was completed. By comparison, the city's initial plan to upgrade and expand the plant on a pay-as-you-go basis was estimated to cost $9.5 million and not be completed until 1994.

The fixed-price contract for design and construction guaranteed that the city would not pay costs that exceed the initial bid (change orders), which had added 20% to the bid cost for plants in nearby communities. EMC absorbed the cost of change orders.

LESSONS LEARNED

- Mount Vernon learned that it is important to find a partner that will accept responsibility for all aspects of the project

Mount Vernon learned that it is important to negotiate a public-private partnership that places responsibility for design, construction and operation with a single company. When problems occur, EMC has full liability. The city wanted to avoid the difficulties it experienced with an earlier expansion of the plant, when serious problems could not be resolved because none of the different private partners involved would accept responsibility.

CONTACT

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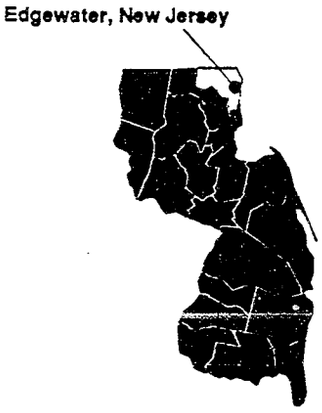
WASTEWATER TREATMENT

Turnkey Contract

WASTEWATER TREATMENT PLANT
EDGEWATER, NEW JERSEY



- **The Borough of Edgewater created the Municipal Utility Authority to issue tax-exempt bonds for improvement of its wastewater treatment system**
- **The authority entered into a turnkey agreement with Lotepro Corporation to design, construct, and operate a secondary treatment plant, owned by the authority**
- **Through tax-exempt bond financing and private construction, the project was completed for approximately 25% less than the estimated cost of financing the project with federal grants**

SUMMARY

After years of waiting for federal grant money to upgrade its wastewater treatment plant, grant money was no longer available in New Jersey. The Borough of Edgewater faced the July 1988 Clean Water Act deadline to provide secondary treatment. In addition, a state construction ban prevented new development in Edgewater until its wastewater system was improved. Edgewater's long-term contract to treat sewage from the neighboring Borough of Cliffside Park required Edgewater to ensure capacity to meet Cliffside Park's needs in addition to its own.

Edgewater created the Municipal Utility Authority to own the existing wastewater treatment plant and issue bonds to finance construction of a secondary treatment plant. Following competitive negotiation, the authority entered into a **turnkey** agreement with Lotepro Corporation to design, construct, and operate the secondary treatment plant.

PARTIES INVOLVED AND TIMEFRAME

Public Partners (owner)	Edgewater, New Jersey Municipal Utility Authority
Private Partner	Lotepro Corporation
Population	4,674 (1987, Edgewater)
Median Household Income	$20,737 (1979, Edgewater)
Form of Government	Mayor/City Council
Project Initiated	January 1986
Project Completed	Scheduled July 1989
Total Capital Cost	$16 million

WHY WAS A PRIVATE PARTNER CHOSEN/ALTERNATIVES CONSIDERED?

- Federal grants were no longer available
- Cost of bond financing was comparable to cost of state loans
- Chose to create municipal utility authority to contract with a private partner

Edgewater planned to use federal grants to construct a secondary treatment plant, but when they finally neared the top of the state priority list, federal grant money was no longer available in New Jersey. Edgewater decided that the cost of bond financing was comparable to the cost of financing the project with state loans, which had replaced grants. Under a new state privatization law, Edgewater created the Municipal Utility Authority to issue bonds and contract with a private company to design, construct, and operate a secondary treatment plant owned by the authority.

WHAT WERE THE FINANCING ARRANGEMENTS?

- $16 million of tax-exempt general obligation bonds were issued to finance the project, backed by Edgewater and Cliffside Park
- A sewer connection fee of $2000 was instituted by both boroughs to help pay debt

The Municipal Utility Authority issued $16 million in 30-year, tax-exempt general obligation bonds to finance the project. The bonds are backed by the full faith and credit of the Boroughs of Edgewater and Cliffside Park. The bonds were insured, raising the rating to AA.

The debt will be paid by property taxes, user fees, and sewer connection fees from new developments in both boroughs. Revenues from Cliffside Park are deposited in Edgewater's general fund.

For this project, Edgewater and Cliffside Park instituted a $2000 sewer connection fee for new developments. Because the sewer connection fees are dedicated for payment of the bonds, those revenues are deposited in a special account.

WHAT WERE THE PROCUREMENT ARRANGEMENTS?

- Private partner chosen through competitive negotiation
- Signed agreement with Lotepro to design and construct plant + 20-year service agreement, renewable every five years, for operation and maintenance

The authority issued an RFP and selected Lotepro Corporation through competitive negotiation. The authority signed a contract with Lotepro to design and construct the plant and a 20-year service agreement consisting of an initial 5-year contract, with the option for three, five-year renewals at the discretion of the authority. The contract also requires Lotepro to operate the existing plant during construction.

A 50-year contract, signed in 1955, between the Borough of Edgewater and the Borough of Cliffside Park requires Edgewater to treat one-half of Cliffside Park's sewage through 2005. The contract was extended to 2017 to coincide with the length of the bond issue. Cliffside Park pays a per-gallon user fee for sewage treated at the Edgewater plant.

WHAT WAS THE DIVISION OF RESPONSIBILITIES?

Borough of Edgewater

- Create the Municipal Utility Authority
- Back the general obligation bonds with the full faith and credit of the borough

Municipal Utility Authority

- Purchase the existing primary treatment plant from the Borough of Edgewater
- Sell revenue bonds to finance upgrading the primary treatment plant and construction of a secondary treatment plant

Borough of Cliffside Park

- Back the general obligation bonds with the full faith and credit of the borough
- Pay user fees to Edgewater for treatment of one-half of its sewage, under a long-term contract

Lotepro Corporation

- Operate the existing plant during construction
- Design, construct, and operate a secondary treatment plant
- Secure the environmental permits
- Comply with environmental permit requirements
- Guarantee performance of plant equipment

HOW WAS THE PROJECT IMPLEMENTED?

- State law allowed local governments to contract with private companies to build and operate wastewater treatment facilities
- Because of their low debt limit, Edgewater created a special authority to issue bonds

Edgewater was able to seek a private partner as a result of a state law passed in 1986. The law enables local governments to contract with private companies for the finance, design, construction, and operation of wastewater treatment plants.

Edgewater created the Municipal Utility Authority to issue bonds because the bonding capacity of an authority is not limited by the state. The Borough of Edgewater did not have adequate bonding capacity because of its low debt limit set by the state.

HOW WAS THE PROJECT IMPLEMENTED? (Continued)

- Municipal employees kept their jobs at the plant and maintain benefits as local government employees

The contract required Lotepro to retain the treatment plant's municipal employees. The employees maintain their benefits because they are still employees of Edgewater. The authority reimburses Lotepro for their salaries and benefits.

WHY WAS THE PROJECT SUCCESSFUL?

- Tax-exempt bond financing was faster and less expensive than alternatives
- Strong demand for development assured adequate revenues from user fees

Edgewater saved approximately 25% of the estimated cost of financing the project with federal grants. With private construction and bond financing, the project could proceed more quickly and they did not have to meet procurement and wage rate requirements associated with the federal grant process.

Edgewater had a large amount of valuable land ready for development upon completion of the new wastewater system. With strong developer interest, the authority could anticipate sufficient revenues from user fees.

LESSONS LEARNED

- Control over operating costs was strengthened by a 20-year service agreement, with option for renewal every five years

The authority increased their control over operating costs by negotiating the 20-year service agreement with the option for renewal every five years at the discretion of the authority. While the agreement is a 20-year commitment for Lotepro, the authority is committed for only 5 years. If the authority decides it can operate the plant at a lower cost than Lotepro, it can take over operation at the end of any of those five-year periods.

CONTACT

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Mayor and Chairman of Municipal Utility Authority
Borough of Edgewater
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Edgewater, NJ 07020
(201) 592-1100

10.063 Agricultural Conservation Program

FEDERAL AGENCY: AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

OBJECTIVES: Control of erosion and sedimentation, encourage voluntary compliance with Federal and State requirements to solve point and nonpoint source pollution, improve water quality, encourage energy conservation measures, and assure a continued supply of necessary food and fiber for a strong and healthy people and economy. The program will be directed toward the solution of critical soil, water, energy, woodland, and pollution abatement problems on farms and ranches.

TYPES OF ASSISTANCE: Direct Cost-Share Payments for Specified Use.

USES AND USE RESTRICTIONS: Conservation practices are to be used on agricultural land and must be performed satisfactorily and in accordance with applicable specifications. The wildlife conservation practices must also conserve soil or water. Program participants are responsible for the upkeep and maintenance of practices installed with cost-share assistance. The cost-sharing assistance does not apply if the primary purpose is to bring new land into production.

EXAMPLES OF FUNDED PROJECTS: In 1988, $6.8 million was allocated to States with approved water quality special projects. Targeting was directed to the most cost-effective practices instead of geographical areas.

FUNDING AVAILABILITY IN RHODE ISLAND: Approximately $60,000 per year is disbursed for projects in Rhode Island. Half of this is used to pay farmers to plant cover crops. For example, dairy farmers grow silage corn and then cover the same acreage with winter rye. The other half of the funds is used for waterways management, such as diversions and terraces, and waste management facilities, such as storage facilities for manure.

FINANCIAL INFORMATION:

Account Identification: 12-3315-0-1-302.

Obligations: (Direct payments) FY 87 $181,894,000; FY 88 est $177,331,000; and FY 89 est $248,935,000.

Range and Average of Financial Assistance: $3 to $3,500; $990. Pooling agreement $3 to $10,000; $1,600.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Any person who as owner, landlord, tenant, or sharecropper on a farm or ranch, including associated groups, bears a part of the cost of an approved conservation practice is eligible to apply for cost-share assistance. This program is available to farmers and ranchers in the 50 States.

Beneficiary Eligibility: Any person who as owner, landlord, tenant, or sharecropper on a farm or ranch, including associated groups, bears a part of the cost of an approved conservation practice is eligible to apply for cost-share assistance. This program is available to farmers and ranchers in the 50 States.

APPLICATION AND AWARD PROCESS:

Application Procedure: Eligible persons make application at the ASCS county office in the county where the land is located.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Cost-share payments. Payment rates range up to 75 percent of cost, not to exceed $3500 per annum in Rhode Island.

CRITERIA FOR SELECTING PROPOSALS: States submitted requests for water quality special projects. Projects were ranked against water quality standards, and those project areas which showed the most long-term benefits to the public were selected.

INFORMATION CONTACT: Alfred Bettencourt, Agricultural Stabilization and Conservation Service, 401 828-8232

10.069 Conservation Reserve Program

FEDERAL AGENCY: AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To protect the Nation's long-term capability to produce food and fiber; to reduce soil erosion; to reduce sedimentation; to improve water quality; to create a better habitat for fish and wildlife; to curb production of some surplus commodities; and to provide some needed income support for farmers.

TYPES OF ASSISTANCE: Direct Payments for Specified Use.

USES AND USE RESTRICTIONS: Eligible owners or operators may place highly erodible land under a 10 year contract. The participant, in return for annual payments, agrees to implement a conservation plan developed by the local conservation district for converting highly erodible cropland to a less intensive use, i.e., cropland must be planted with a permanent vegetative cover, such as, perennial grasses, legumes, forbs, shrubs, or trees. The participant agrees to reduce the aggregate total of acreage bases, allotments, and quotas for the contract period for each farm which contains land that is subject to a Conservation Reserve Program contract by an amount based on the ratio of the total cropland acreage on each farm, and the total acreage on each farm subject to the CRP contract. Financial and technical assistance are available to participants to assist in the establishment of a permanent vegetative cover.

FUNDING AVAILABILITY IN RHODE ISLAND: Funding is available from a national pool. Farmers make bids for funds to the State, stating the price per acre at which they will which they will place the lands in question into conservation use. The State then requests federal funding for the bids it wishes to pursue. Money is allocated to each state on the basis of the number of bids submitted. No bids have ever been submitted in Rhode Island, probably due to the relatively low maximum rental rate of $50 per acre per year.

FINANCIAL INFORMATION:

Account Identification: 12-3319-0-1-302.

Obligations: FY 87 $267,024,141; FY 88 est $736,316,000; and FY 89 est $1,704,638,000.

Range and Average of Financial Assistance: $50 to $50,000; $5,324.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: An individual, partnership, association, corporation, estate, trust, other business enterprises or other legal entities and, whenever applicable, a State, a political subdivision of a State, or any agency thereof owning or operating private croplands, and State or local government croplands may apply.

Beneficiary Eligibility: An individual, partnership, association, corporation, estate, trust, other business enterprises or other legal entities and, whenever applicable, a State, political subdivision of State, or any agency thereof owning or operating private croplands, and State or local government croplands will benefit.

APPLICATION PROCESS:

Application Procedure: Submit a rental rate per acre bid to the local Agricultural Stabilization and Conservation Service (ASCS) office that serves the area in which the farm or ranch is located during the announced signup period.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Annual rental payments are made at the rate set in the accepted bid. A one time cost-share payment is made when approved conservation practices are established.

Length and Time Phasing of Assistance: Annual rental payments in cash or generic commodity certificates will be made for 10 years. A one time cost-share payment of 50 percent of the cost of establishing conservation practices will be made after the practice is established.

PROGRAM ACCOMPLISHMENTS: In fiscal years 1986 and 1987, (as of August 18, 1987), 155,796 contracts were signed through the fourth signup covering 17,707,306 acres. Each contract covers an average of 110 acres with an average rental rate of $48.40. For crop year 1986, 2,043,070 acres were enrolled. Approximately 13,394,862 acres were enrolled for crop year 1987, and an additional 2,269,374 acres were enrolled to enter the reserve beginning in crop year 1988. A program goal of 40-45 million acres enrolled by 1990 has been set. An average of 23 tons of soil per acre will be saved on land entered in the CRP.

CRITERIA FOR SELECTING PROPOSALS: The lowest bids in terms of dollars per acre on eligible cropland are accepted up to the maximum allowable acres or maximum acceptable rental rate.

INFORMATION CONTACTS: Alfred Bettencourt, Agricultural Stabilization and Conservation Service, 401 828-8232

10.414 Resource Conservation and Development Loans

FEDERAL AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To provide loan assistance to local sponsoring agencies in authorized areas where acceleration of program of resource conservation, development, and utilization will increase economic opportunities for local people.

TYPES OF ASSISTANCE: Direct Loans.

USES AND USE RESTRICTIONS: Loan funds may be used for: (1) Rural community public outdoor-oriented water based recreational facilities; (2) soil and water development, conservation, control and use facilities; (3) shift-in-land use facilities; (4) community water storage facilities; and (5) special purpose equipment to carry out the above purposes. Project must be located in an authorized RC&D area. A loan for a single RC&D measure cannot exceed $500,000. Terms, 30 years; Interest rate, 10.371 percent.

EXAMPLES OF FUNDED PROJECTS: Loans were made for irrigation of farmland and drainage of farmland.

FUNDING AVAILABILITY IN RHODE ISLAND: Funds from a national pool are currently available for these loans, but few loans have been written in recent years due to the availability a less expensive funding source (See 10.418, Water and Waste Disposal Systems for Rural Communities)

FINANCIAL INFORMATION:

Account Identification: 12-4140-0-3-351.

Obligations: (Loans) FY 87 $0; FY 88 est $1,207,000.

Range and Average of Financial Assistance: $12,840 to $500,000; $97,981.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: City, county, State agencies and local nonprofit corporations in authorized Resource Conservation and Development (RC&D) Areas may be eligible for loan assistance provided they: (1) Are a sponsor of the RC&D measure for which a loan is requested and which is included in the RC&D project plan; (2) have authority to borrow funds, repay the loan, and pledge security for the loan and to operate the facilities or

services provided; and (3) are financially sound, organized, and managed to provide efficient service.

Beneficiary Eligibility: Farmers, ranchers, rural residents and other residents in an authorized Resource Conservation and Development (RC&D) area.

APPLICATION AND AWARD PROCESS:

Application Procedure: Preapplication Form AD-621 is filed at District FmHA offices from which assistance may be obtained.

Award Procedure: After the preapplication has been reviewed by the District Director, it is forwarded to the FmHA State Director for review and processing instructions. Following review by the State Director the applicant is notified about eligibility, availability of funds and if an application should be filed. Upon favorable review and approval of a complete application package, funds are made available to the District FmHA Director for delivery.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: This program has no statutory formula.

PROGRAM ACCOMPLISHMENTS: In fiscal year 1987, one application was received, no loan was made. In fiscal year 1988, two loans are estimated to be made.

INFORMATION CONTACT: Diane Went, Farmers Home Administration, 401 765-5500.

10.416 Soil and Water Loans

FEDERAL AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To facilitate improvement, protection, and proper use of farmland by providing adequate financing and supervisory assistance for soil conservation; water resource development, conservation and use; forestation; drainage of farmland; the establishment and improvement of permanent pasture; the development of pollution abatement and control facilities on farms; development of energy conserving measures and other related conservation measures.

TYPES OF ASSISTANCE: Guaranteed/Insured Loans.

USES AND USE RESTRICTIONS: Loan funds may be used to: Level land; carry out basic land treatment practices, including liming, fertilizing, and seeding; establish permanent pastures and farm forests; establish forestry practices; improve irrigation; develop water supplies for home use and livestock; develop energy conserving measures; purchase pumps, sprinkler irrigation systems and other irrigation equipment; acquire water rights; restore and repair ponds, tanks, ditches, and canals for irrigation; dig ditches and install tile to drain farmland; develop ponds and water control structures for the production of fish, under controlled conditions; and carry out pollution control and abatement on farms.

FUNDING AVAILABILITY IN RHODE ISLAND: Loans are available to farmers at the interest rate of 9.75% repayable over 30 years (40-year permitted when justified). Maximum loan amounts are $200,000 for insured loans (those in which FMHA is the lender) and $300,000 for guaranteed loans (those in which a bank is lender and FMHA guarantees loan). These loans are available only as loans of last resort -- the applicant must demonstrate that credit has been refused elsewhere or offered only on unaffordable terms. There is currently not much demand for these loans.

FINANCIAL INFORMATION:

Account Identification: 12-4140-0-3-351.

Obligations: (Loans) FY 87 $4,500,000; FY 88 est $3,798,220; and FY 89 est $11,000,000.

Range and Average of Financial Assistance: $4,000 to $101,000; $19,000.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Loans may be made to eligible farming partnerships, joint operations, cooperatives, or corporations, as well as individual farm owners or tenants. Applicant must: (1) Be unable to obtain credit from other sources under reasonable terms and conditions; (2) be a citizen and possess the legal capacity to incur the obligations of the loan. If a partnership, joint operation, cooperative or corporation, the entity must be controlled by individuals engaged primarily and directly in farming; (3) be of good character as related solely to debt repayment ability, reliability, managerial ability and industry; (4) have the necessary experience, training and managerial ability to carry out the proposed operation; (5) have a combined soil and water, recreation, and farm ownership loan indebtedness to FmHA of no more than $200,000 for insured loans; and $300,000 for guaranteed loan(s), or a combination of insured and guaranteed indebtedness; or a total indebtedness against the property securing the loan(s) of not more than the market value of the security, whichever is the lesser amount.

Beneficiary Eligibility: Applicants and Borrowers are the direct beneficiaries and must meet the applicant eligibility requirements. Farmers and ranchers benefit from this program.

Credentials/Documentation: Applicant must establish that credit is not available elsewhere for the requested purpose.

APPLICATION PROCESS:

Application Procedure: Applicant files an Application for FmHA Services, with supporting information, at the local county office of the Farmers Home Administration.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Program size does not permit equitable distribution to States. Funds are obligated on a first come, first served basis, subject to availability. This program has no statutory formula or matching requirements.

Length and Time Phasing of Assistance: Loans are usually scheduled for 30 years repayment, but when justified may be scheduled over periods up to 40 years.

PROGRAM ACCOMPLISHMENTS: There were 279 insured loans made in fiscal year 1986 and 231 in fiscal year 1987. For fiscal year 1988, it is projected that 300 loans will be made. Loans are used to drill wells, construct ponds, dig ditches and purchase and install irrigation equipment.

INFORMATION CONTACT: Diane Went, Farmers Home Administration, 401 765-5500.

10.418 Water and Waste Disposal Systems for Rural Communities

FEDERAL AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To provide basic human amenities, alleviate health hazards and promote the orderly growth of the rural areas of the nation by meeting the need for new and improved rural water and waste disposal facilities.

TYPES OF ASSISTANCE: Project Grants; Direct Loans.

USES AND USE RESTRICTIONS: Funds may be used for the installation, repair, improvement, or expansion of a rural water facility including distribution lines, well pumping facilities and costs related thereto, and the installation, repair, improvement, or expansion of a rural waste disposal facility including the collection, and treatment of sanitary, storm, and solid wastes. Grant funds may not be used to pay: interest on loans, operations and maintenance costs, or to acquire or refinance an existing system. No maximum loan amount is established by statute. The maximum term on all loans is 40 years. However, no repayment period will exceed any statutory limitation on the organization's borrowing authority nor the useful life of the improvement or facility to be financed. There are currently three different interest rates. A 5 - percent rate when the loan is required to meet health or sanitary standards and the median household income of the service area is below the poverty line; the intermediate rate, halfway between 5 - percent and market rate, if the median household income of the service area is not more than 85 percent of the nonmetropolitan median household income of the State; and market rate for those applicants that do not qualify for 5 percent or intermediate rate.

EXAMPLES OF FUNDED PROJECTS: The following areas received funds for specified projects: Construct new water system consisting of waterlines, pumping station, wells and storage tanks; water system improvements consisting of additional waterlines, new water treatment facility and booster pump; renovation of existing water system which includes new distribution lines, wells and pressure tanks; replace sewage treatment plant and improve sewage collection lines; and rehabilitate sewage collection lines and construct lift station; purchase site for landfill and purchase trucks and equipment for solid waste disposal.

FUNDING AVAILABILITY IN RHODE ISLAND: Rhode Island's annual funding allotment tends to be small, sometimes requiring FmHA to petition national headquarters for additional funds, which have always been granted in the past. Funds are made available to communities and special purpose districts, but not individual residences. Only communities with populations under 10,000 are eligible for funds.

In FY 89, $360,000 was available for grants. Income criteria restrict the availability of grant funds to the following communities: Pascoag (Burrillville); Bradford (Westerly); New Shoreham; Jamestown. In the same year, $522,000 was available for loans at interest rates slightly below market rates and with repayment times of up to 40 years if necessary. Burrillville and North Smithfield are among the Rhode Island towns which have received loans for sewering. Jamestown received two grants ($234,750) and two loans ($350,250) in FY88 for water supply uses. The Portsmouth Fire and Water District received a loan of $2,271,530 in FY88 for use in building a new water tower and running new water supply lines.

FINANCIAL INFORMATION:

Account Identification: (Loans) 12-4155-0-3-452; (Grants) 12-2066-0-1-452.

Obligations: (Loans) FY 87 $330,380,000; FY 88 est $330,380,000; and FY 89 est $327,076,000. (Grants) FY 87 $117,663,266; FY 88 est $116,595,448; and FY 89 est $108,301,000.

Range and Average of Financial Assistance: (FY 1987) (Loans) $4,000 to $6,818,200; $466,160; (Grants) $4,500 to $2,136,000; $347,866.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Municipalities, counties, and other political subdivisions of a State, such as districts and authorities; associations, cooperatives, and corporations operated on a not-for-profit basis; and Indian tribes on Federal and State reservations and other federally recognized Indian tribes. Facilities shall primarily serve rural residents. The service area shall not include any area in any city or town having a population in excess of 10,000 inhabitants according to the latest decennial census of the United States. The applicant must: (1) Be unable to finance the proposed project from its own resources or through commercial credit at reasonable rates and terms; and (2) have the legal authority necessary for constructing, operating, and maintaining the proposed facility or service, and for obtaining, giving security for, and repaying the proposed loan. Plans and specifications must be developed to comply with State and local health and pollution regulations and other requirements. Grants are made only when necessary to reduce the average annual benefited user charges to a reasonable level. Normally, grants are considered only when the debt service portion of the cost to grant eligible users exceeds the following percentages of median household incomes (MHI) for the applicant service area; .5 percent when the MHI of the service area is below the poverty line or below 80 percent (whichever is higher) of the State's non-metropolitan household income (NMHI); 1.0 percent when the MHI of the service area exceeds the .5 percent requirement but is not more than 100 percent of the

State's non-metropolitan household income (NMHI); no FmHA grant funds will be used in any project when the MHI of the service area is above the poverty line and more than 100 percent of the State's NMHI. The FmHA grant may not exceed 75 percent of the eligible project development cost when the MHI of the service area is below the poverty line or below 80 percent (whichever is higher) of the State's NMHI; 55 percent when the MHI of the service area exceeds the 75 percent requirements, but is not more than 100 percent of the State's NMHI.

APPLICATION AND AWARD PROCESS:

Application Procedure: Preapplication Form AD-621 is filed at the local FmHA county or District office from which assistance may be obtained.

Award Procedure: After the preapplication has been reviewed by the FmHA District Director, it is forwarded to the FmHA State Director for review and processing instructions. Following loan/grant approval and completion of application processing requirements, funds are made available to the FmHA District Director for Delivery.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: This program has no statutory formula. Administrative rule reference is 7 CFR 1940 subpart L. Funds are allocated to States based upon rural population and number of households in poverty. This program has no matching requirements.

PROGRAM ACCOMPLISHMENTS: In fiscal year 1987, 679 loans and 319 grants were made. It is estimated that 660 loans and 300 grants will be made in fiscal year 1988; and 625 loans and 270 grants will be made in fiscal year 1989.

CRITERIA FOR SELECTING PROPOSALS: In selecting applications for funding, the agency cooperates with appropriate State agencies. FmHA assistance for water and waste disposal projects will be directed toward truly rural areas and rural communities. Priority considerations for available funds place emphasis on criteria such as: population, low-income and health and sanitary problems. Farmers Home Administration financed facilities will not be inconsistent with any development plans of the State, mutijurisdictional area, counties, or municipalities in which the proposed project is located.

INFORMATION CONTACT: Diane Went, Farmers Home Administration, 401 765-5500.

10.419 Watershed Protection and Flood Prevention Loans

FEDERAL AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE as amended, Public Law 78-534.

OBJECTIVES: To provide loan assistance to sponsoring local organizations in authorized watershed areas for share of cost for works of improvement.

TYPES OF ASSISTANCE: Direct Loans.

USES AND USE RESTRICTIONS: Loan funds may be used to help local sponsors provide the local share of the cost of watershed works of improvement for flood prevention, irrigation, drainage, water quality management, sedimentation control, fish and wildlife development, public water based recreation, and water storage and related costs. The total amount of WS loans outstanding in any one watershed cannot exceed $10,000,000.

EXAMPLES OF FUNDED PROJECTS: Loans were made to: 1) install or improve facilities to store and convey irrigation water to farms; treat and distribute water for farm use, and drain farm areas; 2) install structures and equipment for flood prevention; 3) install or improve a municipal water supply reservoir with recreation, fish and wild life improvement; 4) establish recreational developments in or adjacent to reservoirs, lakes, streams, or shorelines; 5) provide fish and wildlife developments.

FUNDING AVAILABILITY IN RHODE ISLAND: Funds are available from a national pool for these loans. However, there are currently no areas having approved watershed plans as required by the Watershed Protection and Flood Prevention Act, and thus, no loans have ever been made in Rhode Island. It is not clear what the prevailing interest rate is for these loans.

FINANCIAL INFORMATION:

Account Identification: 12-4140-0-3-351.

Obligations: (Loans) FY 87 $148,200; FY 88 est $7,949,000.

Range and Average of Financial Assistance: $19,800 to $300,000; $133,276.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: To be eligible for a watershed loan an applicant must: (1) Be a sponsoring local organization, such as municipal corporation, soil and water conservation

district, or other organization not operated for profit in the approved watershed project; and (2) have authority under State law to obtain, give security for, and raise revenues to repay the loan and to operate and maintain the facilities to be financed with the loan. Assistance is authorized for eligible applicants in approved watershed areas.

Beneficiary Eligibility: Farmers, ranchers, rural residents and other residents in the authorized watershed area.

APPLICATION AND AWARD PROCESS:

Application Procedure: Preapplication Form AD-621 is filed at county or District FmHA office from which assistance may be obtained.

Award Procedure: After the preapplication has been reviewed by the District Director, it is forwarded to the FmHA State Director for review and processing instructions. Following review by the State Director, the applicant is notified about eligibility, availability of funds, and if an application should be filed. Upon favorable review and approval of a complete application package, funds are made available to the District FmHA Director for delivery.

Deadlines: None.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: This program has no statutory formula.

Length and Time Phasing of Assistance: A time limitation is not specified for the use of FmHA loan funds. Funds will be awarded when all FmHA requirements are met and the project can be completed on a timely basis. Funds may be advanced on an as needed basis by FmHA.

PROGRAM ACCOMPLISHMENTS: No applications were received in fiscal year 1987; however, one loan was made. Two loans are estimated to be made in fiscal year 1988. No loans are estimated to be made in fiscal year 1989.

INFORMATION CONTACTS: Richard Burke, Farmers Home Administration, 413 253-3471.

10.424 Industrial Development Grants

FEDERAL AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To facilitate the development of business, industry, and related employment for improving the economy in rural communities.

TYPES OF ASSISTANCE: Project Grants.

USES AND USE RESTRICTIONS: Grant funds may be used to finance industrial sites in rural areas including the acquisition and development of land and construction, conversion, enlargement, repair or modernization of buildings, plants, machinery, equipment, access streets and roads, parking areas, transportation serving the site, utility extensions, necessary water supply and waste disposal facilities, pollution control and abatement incidental to site development, fees, and refinancing.

EXAMPLES OF FUNDED PROJECTS: Grant funds were used to assist rural communities in developing small industrial parks or sites by acquiring land, the purchase of necessary equipment, construction of buildings, to provide water and waste disposal facilities, and to pay for costs of streets, parking areas and access roads.

FUNDING AVAILABILITY IN RHODE ISLAND: In FY89, Massachusetts was the only state in the tri-state region served by the Farmers Home Administration (which includes Rhode Island and Connecticut) that submitted a grant proposal. Funding existed for all three, however. Massachusetts requested and received a grant for use in an industrial park project. It is not clear whether Congress will fund this program again in FY90. In any case, it is possible there may be funds left at the end of FY89 to fund additional grants.

FINANCIAL INFORMATION:

Account Identification: 12-2065-0-1-452.

Obligations: (Grants) FY 87 $3,000,000; FY 88 est $6,500,000; and FY 89 est $6,500,000.

Range and Average of Financial Assistance: $7,000 to $3,000,000; $63,268.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Applicants eligible for grants are public bodies serving rural areas such as States, counties, cities, townships, and incorporated towns and villages, boroughs, au-

thorities, districts and Indian tribes on Federal and State reservations which will serve rural areas. Rural area for this program is defined as all territory of a State that is not within the outer boundary of any city having a population of 50,000 or more, according to the latest decennial census of the United States. Priority for such grants will be given to areas having a population of not more than 25,000.

Beneficiary Eligibility: Beneficiaries are public bodies in rural areas, villages, towns, and cities with not more than 50,000 population.

APPLICATION AND AWARD PROCESS:

Application Procedure: Preapplication Form AD-621 is filed at the Farmers Home Administration (FmHA) County or District office.

Award Procedure: After the preapplication has been reviewed by the District Director, it is forwarded to the FmHA State Director for review and processing instructions. Following approval by the State Director, funds are made available to the District Director for final delivery. Notification of awards must be made to the designated State Central Information Reception Agency.

Deadlines: None.

Range of Approval/Disapproval Time: 30 to 90 days.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Funds are allocated to States based on rural population and percent of nonmetropolitan per capita income. On occasion, the allocation to States may not be practical due to funding or administrative constraints. In these cases, funds will be controlled by the National Office.

PROGRAM ACCOMPLISHMENTS: In fiscal year 1987, one grant was made, and in fiscal year 1988, it is estimated that 36 grants will be made.

CRITERIA FOR SELECTING PROPOSALS: Priority shall be given to communities having a population of less than 25,000. Projects selected for funding should, as much as practical, adhere to the following priorities: (1) Projects which will be located in communities having a large portion of their population with low incomes; (2) projects which will save existing jobs; (3) projects which will create jobs; (4) projects which will create job opportunities; and (5) projects which will contribute to overall economic stability of the area but generate few or no jobs.

INFORMATION CONTACTS: Craig Dore, Farmers Home Administration, 413 253-3471.

10.901 Resource Conservation and Development

FEDERAL AGENCY: SOIL CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To encourage and improve the capability of State and local units of government and local nonprofit organizations in rural areas to plan, develop and carry out programs for resource conservation and development.

TYPES OF ASSISTANCE: Project Grants; Advisory Services and Counseling.

USES AND USE RESTRICTIONS: Technical and financial assistance is available only for RC&D areas authorized for assistance. Assistance is available for the planning and installation of approved measures specified in RC&D area plans, to conserve and improve the use of land, develop natural resources, and improve and enhance the social, economic and environmental conditions in rural areas. Grant funds are available only for Federal cost share part of construction contracts.

EXAMPLES OF FUNDED PROJECTS: MONTANA - Rodeo Ranchettes Critical Area Treatment (Bitterroot RC&D Area): A problem of severe streambank erosion (up to 50 feet in places) along about 4,000 feet of the Bitterroot River, fronting on an area of existing rural homes and potential homesites, was brought to the attention of the area sponsors. As a result, the Missoula Conservation District and Missoula County Commissioners sponsored a measure to stabilize the areas: Rural residents are now safer, downstream water quality has been improved, recreation opportunities have been enhanced, and fish and wildlife resources are protected from sedimentation damages. OREGON - Nursery Bridge Diversion and Highline Canal Pipe Drop (Columbia - Blue Mountain RC&D Area): This measure provides reliable and efficient delivery of irrigation water to 7,000 acres on 300 farms. The improvement will also prevent erosion, sedimentation, water loss, and drainage problems. Sponsors of the RC&D Area provided cost-sharing funds.

FUNDING AVAILABILITY IN RHODE ISLAND: Like all other states, Rhode Island receives an annual allotment of funds for use by its Resource Conservation and Development Area (comprising the entire state) to provide technical assistance to communities and individuals. It may also apply for cost-share funds on a competitive basis from a national pool for use in related projects. Funds from this latter source have been used for many projects in Rhode Island. By law, these projects must occur on lands open to the general public, such as those owned by government or non-profit agencies.

FINANCIAL INFORMATION:

Account Identification: 12-1010-0-1-302.

Obligations: (Grants) FY 87 $6,536,078; FY 88 est $7,535,736; and FY 89 est $5,100,000. (Salaries and Expenses) FY 87 $17,924,283; FY 88 est $19,263,837; and FY 89 est $19,920,000.

Range and Average of Financial Assistance: In FY 1987: $10,000 to$500,000.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: State and local governments and nonprofit organizations with authority to plan or carry out activities relating to resource use and development in multijurisdictional areas.

Beneficiary Eligibility: State and local governments and nonprofit organizations with authority to plan or carry out activities relating to resource use and development in multijurisdictional areas.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Local or State agencies must provide land rights needed for the installation of all measures. RC&D grant assistance may be provided for a portion of the construction and real property (land rights) costs depending on the project purpose. Local or State agencies generally must provide for the remaining construction, operation and maintenance. Loan assistance may be provided for the local share of measure cost.

PROGRAM ACCOMPLISHMENTS: USDA technicians, as of September 30, 1987, were giving assistance to 189 Resource Conservation and Development areas. The combined 189 areas include over 855 million acres. Completed measures by local citizens to improve the economy and quality of living in RC&D areas totaled 20,347, as of September 30, 1987.

CRITERIA FOR SELECTING PROPOSALS: Proposals for measures are judged on relevance of the measure to the RC&D area plan's goals and objectives.

INFORMATION CONTACTS: Brian Wulfenden, Resource Conservation and Development Coordinator, 401 885-1321.

10.904 Watershed Protection and Flood Prevention

FEDERAL AGENCY: SOIL CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To provide technical and financial assistance in planning and carrying out works of improvement to protect, develop, and utilize the land and water resources in small watersheds.

TYPES OF ASSISTANCE: Project Grants; Advisory Services and Counseling.

USES AND USE RESTRICTIONS: Assistance is provided in planning, designing, and installing watershed works of improvement; in sharing of costs of measures for watershed protection flood prevention, irrigation, drainage, sedimentation control, and public water based fish and wildlife and recreation; and in extending long term credit to help local interests with their share of the costs. Watershed area must not exceed 250,000 acres. Capacity of a single structure is limited to 25,000 acre-feet of total capacity and 12,500 acre-feet of floodwater detention capacity.

EXAMPLES OF FUNDED PROJECTS: To date, Federal assistance for installation has been authorized on 1,436 watershed projects. The following are five examples of projects that have been completely installed: 1) Escondido Creek, California; 2) Upper Elk River Watershed, Kansas; 3) Paint Creek Watershed, Oklahoma; 4) Bradley Brook Watershed, Massachusetts; and 5) Castleman Creek, Texas.

FUNDING AVAILABILITY IN RHODE ISLAND: This program primarily funds technical assistance by Rhode Island's three Conservation Districts for identifying and quantifying watershed problems and developing a solution plan. Limited financial assistance for implementation is also available from a national pool of money appropriated annually by Congress. These funds are allocated among the states on the basis of the volume of applications ready to proceed. Although past commitments absorb current funds, applications are still accepted. The focus is on flooding and water quality in agricultural communities, but rural communities are not excluded.

FINANCIAL INFORMATION:

Account Identification: Watershed and flood prevention operations, 12-1072-0-1-301; Watershed planning, 12-1066-0-1-301.

Obligations: (Grants-watershed and flood prevention operations) FY 87 $85,247,016; FY 88 est $89,844,100; and FY 89 est $32,661,500. (Salaries and expenses-watershed and

flood prevention operations) FY 87 $57,909,381; FY 88 est $55,031,754; and FY 89 est $44,600,200. (Salaries and expenses-watershed planning) FY 87 $8,351,384; FY 88 est $8,651,000; and FY 89 est $7,042,000.

Range and Average of Financial Assistance: (per State) $20 to $7,500,000; $1,700,000.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Any State agency, county or groups of counties, municipality, town or township, soil and water conservation district, flood prevention or flood control district, Indian tribe or tribal organization, or any other nonprofit agency with authority under State law to carry out, maintain, and operate watershed works of improvement may apply for assistance.

Beneficiary Eligibility: Any State agency, county or groups of counties, municipality, town or township, soil and water conservation district, flood prevention or flood control district, Indian tribe or tribal organization, or any other nonprofit agency with authority under State law to carry out, maintain, and operate watershed works of improvement may apply for assistance.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Technical and financial assistance under which program funds provide certain prescribed services and costs and a percentage of other costs on the basis of a contract vary according to purpose of the works of improvement. For example, for construction costs under the Act, program funds may pay 100 percent for flood prevention; up to 50 percent of agricultural water management, public recreation and fish and wildlife purposes; and none of the costs for certain other nonagricultural water management purposes. All of the applicants' installation costs are eligible for program loans. Reimbursable advances are available for preservation of sites and future municipal water supply.

Length and Time Phasing of Assistance: Continues until all works of improvement are installed or their installation is terminated by mutual agreement. Federal assistance for planning is provided as it becomes available, and leads to preparation of a watershed work plan which sets forth the works of improvement, the general time schedule, and other arrangements for their installation.

PROGRAM ACCOMPLISHMENTS: In fiscal year 1987, 22 projects were approved for planning. A total of 452 projects were at the construction stage. Projects with construction completed under the program totaled 662.

CRITERIA FOR SELECTING PROPOSALS: 1) The watershed must meet the requirements of the law; 2) the governor or his representative must recommend the watershed for planning assistance; 3) it should be evident that problems can be solved by project action under authority of Public Law 83-566; 4) the local sponsors should have authority under State statutes to carry out their responsibility for installation and operation and maintenance of project measures; 5) the local sponsors should indicate willingness to carry out a watershed project; 6) the project should have good prospects for a favorable benefit-cost ratio; 7) no critical environmental issues; and 8) available capabilities and resources to develop a watershed plan.

INFORMATION CONTACT: Herman Calhoun, Soil Conservation Service, 202 447-2547.

10.905 Plant Materials for Conservation

FEDERAL AGENCY: SOIL CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

OBJECTIVES: To assemble, evaluate, select, release, and introduce into commerce, and promote the use of new and improved plant materials for soil, water, and related resource conservation and environmental improvement programs.

TYPES OF ASSISTANCE: Provision of Specialized Services.

USES AND USE RESTRICTIONS: Plant materials are used in all phases of the soil and water conservation program. Plant materials are only produced for field testing to determine the plants value for use on conservation cooperators properties in conjunction with Soil Conservation Districts, State Agricultural Experiment Stations, State Crop Improvement Associations and other Federal and State agencies, and to provide commercial producers with breeder and foundation quality seed or propagules. Large-scale production is conducted by cooperating commercial producers.

FUNDING AVAILABILITY IN RHODE ISLAND: This program provides technical assistance, chiefly through Conservation Districts, to promote the use of plants in conservation. Very little actual work is funded, usually in the form of demonstration projects.

FINANCIAL INFORMATION:

Account Identification: 12-1000-0-1-302.

Obligations: (Salaries and expenses) FY 87 $4,551,702; FY 88 est $4,856,000; and FY 89 est $5,065,000.

Range and Average of Financial Assistance: Not applicable.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Cooperating State and Federal agencies and cooperators of conservation districts, and commercial seed growers and nurserymen interested in the commercial production of selected plant materials.

Beneficiary Eligibility: Cooperating State and Federal agencies and cooperators of conservation districts and commercial seed growers and nurserymen interested in the production of selected plant materials.

APPLICATION AND AWARD PROCESS:

Application Procedure: Contact the local Soil Conservation Service office.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: This program has no statutory formula and no matching requirements.

Length and Time Phasing of Assistance: Not applicable.

PROGRAM ACCOMPLISHMENTS: Over 280 cultivars of grasses, legumes, forbs, shrubs, and trees have been developed and released for commercial increase through this program. Uses include erosion control and sediment reduction, roadside and streambank protection, surface-mined land reclamation, and wildlife food and cover. The annual commercial production of SCS released grasses, legumes and woody plants by commercial seed growers and nurserymen is equivalent to the amount required to establish vegetative cover on over 2,000,000 acres of land.

INFORMATION CONTACT: Herman Calhoun, Soil Conservation Service, 202 447-2547, or any local Soil Conservation District.

APPLICATION AND AWARD PROCESS:

Application Procedure: Contact the local Soil Conservation Service office.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: This program has no statutory formula and no matching requirements.

Length and Time Phasing of Assistance: Not applicable.

PROGRAM ACCOMPLISHMENTS: Over 280 cultivars of grasses, legumes, forbs, shrubs, and trees have been developed and released for commercial increase through this program. Uses include erosion control and sediment reduction, roadside and streambank protection, surface-mined land reclamation, and wildlife food and cover. The annual commercial production of SCS released grasses, legumes and woody plants by commercial seed growers and nurserymen is equivalent to the amount required to establish vegetative cover on over 2,000,000 acres of land.

INFORMATION CONTACT: Herman Calhoun, Soil Conservation Service, 202 447-2547, or any local Soil Conservation District.

11.420 Coastal Zone Management Estuarine Research Reserves

FEDERAL AGENCY: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

OBJECTIVES: To assist States in the acquisition, research, development and operation of national estuarine research reserves for the purpose of creating natural field laboratories to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone.

TYPES OF ASSISTANCE: Project Grants.

USES AND USE RESTRICTIONS: Grants may be used to cover the costs of acquisition, research, development and operation of national estuarine research reserves and educational activities therein. Development and operation costs may include the administrative expenses necessary to monitor the reserve. A limited amount of research may be funded.

EXAMPLES OF FUNDED PROJECTS: Generic projects/activities funded under the national Estuarine Research Reserve program consist of: acquisition of lands to be included in the reserve; site selection procedures and management plan development; construction projects; operation of the reserve; and research and educational activities.

FUNDING AVAILABILITY IN RHODE ISLAND: These grants fund the Narragansett Bay Estuarine Sanctuary on Prudence, Patience, and Hope Islands. Limited funds are also available for research on an ad hoc basis. For example, funds are being provided to the Narragansett Bay Project a Lyme disease study.

FINANCIAL INFORMATION:

Account Identification: 13-1450-0-1-306.

Obligations: (Grants) FY 87 $2,935,000; FY 88 est $2,706,900; and FY 89 est $1,259,000.

Range and Average of Financial Assistance: FY 86 $10,000 to $514,000; $71,050.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Any coastal State. The Governor shall designate the State agency or entity that is to be the applicant.

Beneficiary Eligibility: Any coastal State. The Governor shall designate the State agency or entity that is to be the applicant. Also all qualified scientists and students.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: At least 50 percent of the total project cost must be provided by the applicant. The Federal share for each reserve shall not exceed $4,000,000 for lands, waters or interests therein.

Length and Time Phasing of Assistance: Generally, 1 year.

PROGRAM ACCOMPLISHMENTS: Through fiscal year 1988, national estuarine reserves have been established in California (two), Oregon, Georgia, Ohio, Hawaii, Florida (two), Washington, Rhode Island, Maryland, Puerto Rico, North Carolina, Maine, New York, Alabama and Massachusetts. In fiscal year 1989, it is anticipated that one additional site will be acquired.

CRITERIA FOR SELECTING PROPOSALS: There are four types of awards to coastal States under the National Estuarine Research Reserve Program: preacquisition, acquisition and development, operation and management, and research. Detailed criteria for the State's development of these awards and criteria for reviewing each award are provided in the regulations for the National Estuarine Sanctuary Program (15 CFR Part 921, June 27, 1984). Final regulations are published in the Federal Register.

INFORMATION CONTACT: Roger Green, Department of Environmental Management, 401, 277-2771.

14.218 Community Development Block Grants/Entitlement Grants

FEDERAL AGENCY: COMMUNITY PLANNING AND DEVELOPMENT, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

OBJECTIVES: To develop viable urban communities, by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for persons of low and moderate income.

TYPES OF ASSISTANCE: Formula Grants.

USES AND USE RESTRICTIONS: Localities may undertake a wide range of activities directed toward neighborhood revitalization, economic development, and provision of improved community facilities and services. Entitlement communities develop their own programs and funding priorities as long as programs/activities conform to the statutory standards and program regulations. Some of the specific activities that can be carried out with Community Development Block Grant (CDBG) funds include acquisition of real property, relocation and demolition, rehabilitation of residential and nonresidential structures, and provision of public facilities and improvements, such as water and sewer facilities which require reviews by the State single point of contact or a Regional Planning Agency in accordance with Executive Order 12372, streets, and neighborhood centers. In addition, CDBG funds are available to pay for public services within certain limits. Units of local government may contract with other local agencies or nonprofit organizations to carry out part or all of their programs. Neighborhood-based nonprofit organizations, local development corporations or Section 301 (d) Small Business Investment Companies may act as subgrantees to carry out neighborhood revitalization, community economic development or energy conservation projects in furtherance of CDBG objectives. Cities may provide assistance to profit motivated businesses when necessary or appropriate to carry out economic development activities. All projects or activities must either benefit low and moderate-income persons, aid in the prevention or elimination of slums and blight, or meet other community development needs having a particular urgency.

FUNDING AVAILABILITY IN RHODE ISLAND: Six cities in Rhode Island currently receive Entitlement Grants, and use them according to local discretion. These funds may be used for infrastructure related to Bay initiatives, such as sewering. Pawtucket once used some of its funds for cement relining of part of its sewer system. In July 1989, the following grants will be made in Rhode Island:

Providence:	$ 5,658,000
Pawtucket:	1,795,000
Woonsocket:	1,092,000

Cranston:	900,000
Warwick:	636,000
East Providence:	557,000

FINANCIAL INFORMATION:

Account Identification: 86-0162-0-1-451.

Obligations: (Grants) FY 87 $2,059,400,000; FY 88 $1,972,600,000; and FY 89 est $2,053,100.

Range and Average of Financial Assistance: Determined by formula.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Cities in Metropolitan Statistical Areas with populations of at least 50,000; qualified urban counties of at least 200,000 (excluding the population in entitlement cities) and cities with populations of under 50,000 which are central cities in Metropolitan Statistical Areas are all entitled to receive amounts of funds determined by a statutory formula.

Beneficiary Eligibility: The principal beneficiaries of CDBG funds are low and moderate income residents, (generally defined as families with less than 80 percent of the median family income for the area). The grantee must certify that at least 60 percent of the grant received during a one-to-three-year period that it designates will principally benefit low and moderate income persons.

APPLICATION AND AWARD PROCESS:

Application Procedure: In order to receive its annual entitlement grant, a grantee must submit required certifications including one that it is following a Housing Assistance Plan (HAP) approved by HUD, and a copy of its final statement of community development objectives and projected use of funds to HUD. If the grantee makes a complete submission of all requirements within the established deadlines, the Department will make a full grant award unless the Secretary has made a determination that the grantee's performance is unsatisfactory. The Secretary will make a full grant award generally within 30 days of receipt of the final submission unless a determination has been made that the grantee has failed to carry out its previously approved activities in a timely manner or failed to conform to the requirements of the statute and other applicable laws. Under such circumstances, the Secretary may make appropriate reductions in the amount of the final grant. Every third year, localities submit a Housing Assistance Plan. Each year localities submit an Annual

Housing Assistance Plan describing specific housing assistance programs it plans to undertake during the year.

Renewals: An annual HAP must be submitted each year. A final statement must be submitted each year.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Entitlements are based on a dual formula under Section 106 of the Act using statistical factors. Each metropolitan city and urban county is entitled to receive an amount equaling the greater of the amounts calculated under two formulas. The factors involved in the first formula are population, extent of poverty and extent of overcrowding, weighted 0.25, 0.50, and 0.25, respectively. The factors involved in the second formula are growth lag, poverty, and age of housing, weighted 0.20, 0.30, and 0.50, respectively. No matching requirement. This program has a modified maintenance of effort (MOE) requirement, see funding agency for further details. The statistical factors used for fund allocation are (1) total resident population from the source P25 Census Report as updated by Census Bureau using estimating techniques; (2) number of persons with incomes below the poverty level from the source 1980 Census; (3) number of housing units with 1.01 or more persons per room from the source 1980 Census;(4) age of housing; number of year-round housing units built in 1939 or earlier from the source 1980 Census; (5) growth lag; the lag in population growth as computed from population in 1960 to current population estimate from the source 1960 Census and P25, Census Report. Statistical factors used for eligibility are (1) metropolitan city; central city of a Metropolitan Statistical Area or city within MSA with 50,000 population from the source Census and OMB; (2) urban county;generally, counties in MSA having a net population of 200,000 or more outside entitlement cities from the source Census and OMB.

PROGRAM ACCOMPLISHMENTS: There were 827 approved CDBG entitlement grants for fiscal year 1987. There are 857 units of local government eligible to receive entitlement grants during fiscal year 1988.

INFORMATION CONTACTS: Ronald Hurlett, Office of Block Grant Assistance, 617 565-5389.

14.219 Community Development Block Grants/Small Cities Program

FEDERAL AGENCY: COMMUNITY PLANNING AND DEVELOPMENT, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

OBJECTIVES: The primary objective of this program is the development of viable urban communities by providing decent housing, a suitable living environment, and expanding economic opportunities, principally for persons of low and moderate income.

TYPES OF ASSISTANCE: Project Grants.

USES AND USE RESTRICTIONS: Small Cities develop their own programs and funding priorities. Generally, as in the case of entitlement grants, most activities previously eligible under the categorical program consolidated under the Act, and defined by the statute and regulations may be carried out, i.e., acquisition, rehabilitation or construction of certain public works facilities and improvements, clearance, housing rehabilitation, code enforcement, relocation payments and assistance, administrative expenses, economic development, completing existing urban renewal projects, and certain public services within certain limits. Neighborhood-based nonprofit organizations, local development corporations or Small Business Investment Companies may act as subgrantees to carry out neighborhood revitalization or community economic development projects in furtherance of block grant objectives. Assistance may be provided to for-profit businesses to carry out economic development activities. Communities are restricted from constructing or rehabilitating public facilities for the general conduct of government and from constructing new housing or of making housing allowance or other income maintenance-type payments. The projected use of funds must be developed to give maximum feasible priority to activities which benefit low and moderate income persons, aid in the prevention or elimination of slums or blight and the projected use of funds may also include activities which the applicant certifies are designed to meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community where other financial resources are not available to meet such needs. At least 60 percent of the funds of each grant made available to each unit of general local government must benefit low and moderate income persons.

EXAMPLES OF FUNDED PROJECTS: Neighborhood revitalization projects emphasizing rehabilitation of private homes, and including appropriate improvements of public facilities; economic development projects for expanded employment opportunities; and projects to address serious deficiencies in public facilities such as water and sewer.

FUNDING AVAILABILITY IN RHODE ISLAND: Money is allocated to all states each year by formula. Rhode Island receives approximately $3,500,000. Some of this is used by

small cities for sewer and water projects, but such projects must be undertaken in fulfillment of the basic purpose of grants, which is to promote economic development. West Warwick, for example, has used Block Grant funds for sewer system upgrades. Warren has constructed a town dock, and Portsmouth has built ditches around an open marsh.

FINANCIAL INFORMATION:

Account Identification: 86-0162-0-1-451.

Obligations: (General purpose discretionary) FY 87 $38,407,000; FY 88 est $36,860,000; and FY 89 est $38,000,000. These are total amounts for CDBG small cities and include only HUD administered obligations.

Range and Average of Financial Assistance: In fiscal year 1988, averages were approximately - $250,000 for Single Purpose and $400,000 for Comprehensive.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Under the CDBG Program/State Program (14.228) each State may now elect to administer all aspects of the Small Cities Program for the nonentitlement communities within its jurisdiction. However, HUD will continue to administer the Small Cities Program in States not electing to do so. In States where HUD administers the Program, New York and Hawaii, eligible applicants are units of general local government (including counties), except metropolitan cities, urban counties or units participating in an urban county's CDBG program, and Indian tribes eligible for assistance under Section 107(a)(3) of the Act.

Beneficiary Eligibility: Local governments.

Credentials/Documentation: Costs will be determined in accordance with OMB Circular No. A-87 for State and local governments.

APPLICATION AND AWARD PROCESS:

Application Procedure: The application will be reviewed to assure that it meets all requirements of the regulations. The application will also be rated and ranked under the selection criteria and applicants funded to the extent funds permit.

Award Procedure: Applicants are advised of ranking and selection by the HUD Field Office.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Allocations to States are based on a dual Formula under Section 106 of the Act (24 CFR 570, Subpart B) using statistical factors. Allocations for each State are based on an amount equaling the greater of the amounts calculated under two formulas. The factors involved in the first formula are population, extent of poverty and extent of overcrowding, weighted 0.25, 0.50, and 0.25, respectively. The factors involved in the second formula are population, poverty, and age of housing weighted 0.20, 0.30, and 0.50, respectively. The statistical factors used for fund allocation are (1) total resident population for all places in nation from the source 1980 Census; (2) number of persons with incomes below the poverty level from the soure 1980 Census; (3) number of housing units with 1.01 or more persons per room from the source 1980 Census; (4) age of housing; number of year-round housing units built in 1939 or earlier from the source 1980 Census. The statistical factors for each State have been reduced to reflect only the non-entitled area; that is, the State area excluding metropolitan cities and urban counties. Address questions concerning the formula to John Nagoski, Division of Data Systems and Statistics, Office of Management, Community Planning and Development, 451 7th Street, SW, Washington, DC 20410. Telephone: (202) 755-6042.

Length and Time Phasing of Assistance: Competition is held on an annual basis, but it is not unusual for a single purpose or a comprehensive program to take more than 12 months to complete, depending on activities undertaken.

PROGRAM ACCOMPLISHMENTS: Fiscal year 1987 approvals totaled approximately 90 for the Small Cities Program.

CRITERIA FOR SELECTING PROPOSALS: The program is competitive and the demand for grants far exceeds the available funds. Applications are ranked in accordance with a national rating system to ensure that grants are fairly and equitably awarded. Applicants are funded based on the final ranking of the application, to the extent funds are available. Rating factors consist of: absolute number and percent of poverty persons; impact of the proposed programs; and outstanding past performance in meeting basic national objectives in the area of housing and equal opportunity.

INFORMATION CONTACT: Susan Smith, Inter-Governmental Relations, 401 277-2850.

15.805 Assistance to State Water Resources Research Institutes

FEDERAL AGENCY: GEOLOGICAL SURVEY, DEPARTMENT OF THE INTERIOR

OBJECTIVES: To provide financial support to Water Research Institutes located at designated State universities in each of the 50 States for research, information transfer and student training on one or more aspects of priority water problems.

TYPES OF ASSISTANCE: Formula Grants.

USES AND USE RESTRICTIONS: To provide the State institutes with funds to support a State and regional program of problem/oriented water resources research and information transfer. This may include basic or applied research, setting up conferences to discuss research needs or results, conduct of research, information dissemination, and training of students as a byproduct of research. In general the funds are used to study regional, State, or local water problems, but the results may often have national significance. Federal funds cannot be used for (1) formal instructional activities and general education, and (2) the cost of permanent buildings, either directly or indirectly.

EXAMPLES OF FUNDED PROJECTS: Development of a Less Hazardous Substitute for Chlorine Gas as a Water Disinfectant; Prediction of Arsenic Contamination in Local Ground-Water Supplies; Use of Intermittent Sand Filters for Treatment of Wastewater Lagoon Effluents; Modeling of Conjunctive Use of Surface and Ground-Water Supplies to Increase Water Use Efficiency; Modeling of Stormwater Runoff Management Effects; Water Reuse for Sugarcane Ionization and Ground-Water Recharge.

FUNDING AVAILABILITY IN RHODE ISLAND: Federal money is currently sponsoring the Water Resources Research Center at the University of Rhode Island. In past years, this organization has done research focusing on Bay issues, but it is currently concentrating on freshwater issues. It would, however, entertain Bay-related research if proposed.

FINANCIAL INFORMATION:

Account Identification: 14-0804-0-1-306.

Obligations: (Grants) FY 87 $5,677,000; FY 88 est $5,677,000; and FY 89 est $5,677,000.

Range and Average of Financial Assistance: Each State institute received $114,056 annual grant for fiscal year 1986 and $105,130 for fiscal year 1987. Research projects funded by program grant range from $4,000 to $87,000; Average funding is about $15,000.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: One University Water Research Institute is authorized in each State and other jurisdictions specified in Section 104. Other colleges and universities within a State are encouraged to participate in the program in cooperation with the designated Institute.

Beneficiary Eligibility: Researchers at qualified universities and colleges in the State through the designated institute for the State.

APPLICATION AND AWARD PROCESS:

Application Procedure: State institutes submit proposed annual programs for approval by Program Officer, Geological Survey.

Award Procedure: Geological Survey approves or rejects, in part or as a whole, the program submitted by each State institute. The State institutes are notified of any amendments necessary to obtain Geological Survey approval.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Amount to each State Water Research Institute is on a basis of one Federal share to not less than one and one-half nonfederal share for fiscal year 1988. An equal amount of the total appropriation is available to each qualified institute.

PROGRAM ACCOMPLISHMENTS: Research projects and information transfer activities deal with problems of water quality deterioration, ground water depletion, and inefficient allocation and use of the resource. In fiscal years 1987 and 1988, the 54 Water Research Institute programs applications submitted were approved. The same number is expected in fiscal year 1989.

CRITERIA FOR SELECTING PROPOSALS: Relevance to announced regional priorities of States, technical merit, prospect of attaining objectives in period specified and potential for student training.

INFORMATION CONTACTS:

Dr. Calvin Poon, University of Rhode Island, 401 792-2297.

Quentin L. Florey, Department of the Interior, Reston, VA
703 648-6803.

15.916 Outdoor Recreation: Acquisition, Development and Planning
(Land and Water Conservation Fund Grants)

FEDERAL AGENCY: NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR

OBJECTIVES: To provide financial assistance to the States and their political subdivisions for the preparation of Statewide Comprehensive Outdoor Recreation Plans (SCORPs) and acquisition and development of outdoor recreation areas and facilities for the general public, to meet current and future needs.

TYPES OF ASSISTANCE: Project Grants.

USES AND USE RESTRICTIONS: Acquisition and development grants may be used for a wide range of outdoor recreation projects, such as picnic areas, inner city parks, campgrounds, tennis courts, boat launching ramps, bike trails, outdoor swimming pools, and support facilities such as roads, water supply, etc. Facilities must be open to the general public and not limited to special groups. Development of basic rather than elaborate facilities is favored. Fund monies are not available for the operation and maintenance of facilities. Grants are also available to States only for revising and updating existing SCORPs preparation of new plans and for statewide surveys, technical studies, data collection and analysis and other planning purposes which are clearly related to SCORP refinement and improvement plan.

EXAMPLES OF FUNDED PROJECTS: Acquisition and development grants may be used for a wide range of outdoor recreation projects, such as picnic areas, inner city parks, campgrounds, tennis courts, boat launching ramps, bike trails, outdoor swimming pools, and support facilities such as roads, water supply, etc. Facilities must be open to the general public and not limited to special groups. Development of basic rather that elaborate facilities is favored. Fund monies are not available for the operation and maintenance of facilities.

FUNDING AVAILABILITY IN RHODE ISLAND: Federal appropriations for this program have dwindled, reducing Rhode Island's annual share from roughly $3,000,000 to $180,000. Although this program was recently expanded to permit wetlands acquisition, Rhode Island's funding level is too low to permit acquisition of any land whatsoever. With the funding received last year, DEM made recreation grants to five municipalities, and is using this year's allocation to extend those grants. Throughout the course of this program, none of the funds received by DEM have been used for open space acquisition. All lands acquired have been intended for recreational purposes.

FINANCIAL INFORMATION:

Account Identification: 14-5035-0-2-303.

Obligations: (Grants) FY 87 $46,700,000; FY 88 est $24,000,000; and FY 89 est $20,000,000.

Range and Average of Financial Assistance: $150 to $5,450,000; $68,178.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: For planning grants, only the State agency formally designated by the Governor or State law as responsible for the preparation and maintenance of the Statewide Comprehensive Outdoor Recreation Plan is eligible to apply. For acquisition and development grants, the above designated agency may apply for assistance for itself, or on behalf of other State agencies or political subdivisions, such as cities, counties, and park districts. Individuals and private organizations are not eligible.

Beneficiary Eligibility: The general public. For planning grants, same as Applicant Eligibility.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: The Land and Water Conservation Fund Act specifies that not more than 50 percent of the project cost may be federally financed. Under certain conditions, all or part of the project Sponsor's matching share may be from certain other Federal assistance programs, such as Title I Community Development, Appalachia and all other Regional Commissions. Forty percent of the first $225 million; thirty percent of the next $275 million; and twenty percent of all additional appropriations is apportioned equally among the States. The remaining appropriation is apportioned on the basis of need. This program has maintenance of effort (MOE) requirements, see funding agency for further details.

Length and Time Phasing of Assistance: Funds are available for obligation during the fiscal year in which appropriated and for the two following fiscal years. The assistance period for individual projects varies and may be extended. Complex projects may be broken down into stages, with one being initially approved and the remainder qualified for activation at a later date. Except for project preparation costs, all costs must be incurred within the project period. Planning projects may not be phased.

PROGRAM ACCOMPLISHMENTS: By September 30, 1987, over $3.1 billion has been made available to State and local units of government to assist in planning, acquiring and developing public outdoor recreation areas and facilities. In fiscal 1987, the States received 3,154 grant requests of which 729 were approved for funding.

CRITERIA FOR SELECTING PROPOSALS: At the Federal level each project must be in accord with a State Comprehensive Outdoor Recreation Plan. Beyond this, the selection of projects is made by the State Liaison Officer of each State who is responsible for the administration of the 15.916 program in his State.

INFORMATION CONTACT: David Holt, RIDEM Planning and Development, 401 277-2776

66.455 Construction Grants for Abatement of Combined Sewer Overflow Pollution in Marine Bays and Estuaries

FEDERAL AGENCY: OFFICE OF WATER, ENVIRONMENTAL PROTECTION AGENCY
OBJECTIVES: To award grants to Combined Sewer Overflow (CSO) projects which are designed to restore uses of the receiving waters in Bays and Estuaries which have been impaired by the impact of CSOs.

TYPES OF ASSISTANCE: Project Grants.

USES AND USE RESTRICTIONS: For construction of treatment works as described in the Clean Water Act, Title II.

EXAMPLES OF FUNDED PROJECTS: Construction of primary treatment facilities to treat CSOs. Construction of new sewers to separate stormwater and sewage. Construction of new sewers to divert CSO to the main treatment plants.

FUNDING AVAILABILITY IN RHODE ISLAND: Grants were received in 1988 by the Narragansett Bay Commission and the City of Newport in the amount of $4.62 million each. The Narragansett Bay Commission has recently completed an application for an $600,000 increase in its grant out from the FY90 authorization, but it must compete with projects throughout the nation seeking initial funding, and chances of an award are unclear. Unfortunately, this grant program is scheduled to expire after FY90, and it seems unlikely that Congress will reauthorize it. There are currently many local governments in Rhode Island with applicable marine CSO retrofit projects, but none are far enough along to apply for grant money before the program expires.

FINANCIAL INFORMATION:

Account Identification: 68-0103-0-1-304.

Obligations: (Grants) FY 87 $7,700,000; FY 88 $15,300,000; and FY 89 est $12,000,000. FY 89 est $14,000,000.

Range and Average of Financial Assistance: $76,000 to $7,250,000; $3,000,000.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Local governments through their States.

Beneficiary Eligibility: Local governments.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: This program operates under Section 202 of the Clean Water Act. The Federal grant to communities may be 55 percent of eligible project costs.

PROGRAM ACCOMPLISHMENTS: In fiscal years 1987 and 1988, 13 applications were received and eight of them were awarded. In fiscal years 1989 and 1990, 15 applications are expected and six are likely to be awarded.

CRITERIA FOR SELECTING PROPOSALS: The project will be selected based on: a) the extension of water use benefits, including swimming and shellfishing,m that would result from the project; b) the relationship of water quality improvements to project costs; and 3) the national and regional significance of the project.

INFORMATION CONTACTS:

Warren Towne, RIDEM, 401 277-3961
Soupy Sarker, U.S. EPA Region I, 617 565-3573

66.459 Nonpoint Source Reservation (205 (j) (5))

FEDERAL AGENCY: OFFICE OF WATER, ENVIRONMENTAL PROTECTION AGENCY

OBJECTIVES: To assist States in developing and implementing nonpoint source management programs.

TYPES OF ASSISTANCE: Formula Grants

USES AND USE RESTRICTIONS: Funds are provided to States to carry out activities authorized by Section 319 of the Clean Water Act as amended by the Water Quality Act of 1987. Funds may be used to develop nonpoint source assessment reports and management programs. Upon completion of such reports and programs, funds may be used to implement nonpoint source assessment management programs or update a State's nonpoint source assessment report or management program. There is no match required for Section 205 (j) (5) funds used for developing or updating a State's nonpoint source assessment report or management program. However, Section 205 (j) (5) funds used for implementing a nonpoint source management program must be matched. The Federal share for such implementation activities shall non exceed 60 percent. Generally, the requirements of Section 319 (h) of the Clean Water Act in addition to match (e.g., the priority considerations, maintenance of effort, restrictions on financial assistance to individuals, availability for obligation, requirement for annual report, and limitation on administrative costs) apply to Section 205 (j) (5) funds used to support implementation activities. When Section 205 (j) (5) grant funds are used for program development, those requirements do not apply. Section 205 (j) (5) directs the Administrator to reserve one percent of a State's allotment under Section 205 (c) of the Clean Water Act of $100,000, whichever is greater, for the purposes of carrying out the State's nonpoint source program. The State may request the use of any amount less than the full reserved amount but greater than $100,000, the State may use remaining reserved funds for other purposes under Title II of the Clean Water Act.

EXAMPLES OF FUNDED PROJECTS: The fiscal year 1987 205 (j) (5) funds are primarily being used to support the development of State nonpoint source assessment reports and the development of State nonpoint source management programs.

FUNDING AVAILABILITY IN RHODE ISLAND: Rhode Island has completed both its nonpoint source assessment report and management program, and has recentlyu been awarded a grant for implementation of the latter item. The grant of roughly $100,000 will be used for administrative salaries, outside technical assistance, and several projects such as water quality monitoring.

Unfortunately, when Construction Grant funding has been entirely supplanted by SRF Capitalization Grants, this program will cease to have funds inasmuch as it is tied to Construction Grant money. There is currently a bill before Congress which would maintain funding for Nonpoint Source Reservation by switching its funding base from Construction Grants to SRF Capitalization Grants, but this would have the effect of reducing the SRF Capitalization Grant by the 1% diverted to Nonpoint Source Reservation. At this time, it is too early to predict the fate of this proposal.

FINANCIAL INFORMATION:

Account Identification: 68-0103-0-1-304.

Obligations: (Grants) FY 87 $1,308,900; FY 88 est $14,300,000; and FY 89 est $11,000,000.

Range and Average of Financial Assistance: $100,000 to $1,300,000; $200,000 (estimated).

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: All states.

Beneficiary Eligibility: State and local governments, interstate and intrastate agencies, public and private nonprofit organizations and institutions.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: Section 205(j)(5) directs the Administrator to reserve one percent of a State's allotment under Section 205(c) of the Clean Water Act or $100,000, whichever is greater, for the purposes of carrying out the State's nonpoint source program under Section 319. There is no match required for Section 205(j)(5) funds used for developing or updating a State's nonpoint source assessment report or management program. However, Section 205(j)(5) funds used for implementing a nonpoint source management program must be matched pursuant to Section 319(h)(3). The Federal share for such implementation activities shall not exceed 60 percent.

PROGRAM ACCOMPLISHMENTS: Section 205(j)(5) was established in fiscal year 1987 and thus there are no program accomplishments to report for fiscal year 1986. It is anticipated that most States will submit applications for Section 205(j)(5) funds in fiscal years 1987 and 1988.

CRITERIA FOR SELECTING PROPOSALS: Funds are awarded to States in accordance with Section 205(j)(5) of the Clean Water Act and the EPA program guidance, "Final Draft: Nonpoint Source Guidance," August 1987.

INFORMATION CONTACT: Elizabeth Scott, DEM, 401 277-3434

66.508 Senior Environmental Employment Program

FEDERAL AGENCY: Office of Research and Development, Environmental Protection Agency

AUTHORIZATION: Environmental Programs Assistance Act of 1984, Public Law 98-313, 42 U.S.C. 4368a.

OBJECTIVES: To use the talents of older Americans to provide technical assistance to Federal, State, and local environmental agencies for projects of pollution prevention, abatement and control.

TYPES OF ASSISTANCE: Project Grants (Cooperative Agreements).

USES AND USE RESTRICTIONS: The SEE program is to be used only in two situations: (1) for projects of direct benefit to EPA; or (2) for projects of mutual benefit to EPA and another Federal agency which is funded by EPA.

EXAMPLES OF FUNDED PROJECTS: Provide senior citizens to do national non-agricultural pesticide surveys; monitor for Asbestos Compliance in Schools; provide support to the Agency to review and monitor in the Import Car Program; use senior citizens to monitor for the anti-fuel switching program; provide senior citizens to EPA to do research and general administrative and clerical tasks.

FUNDING AVAILABILITY IN RHODE ISLAND: This program has been used, although not widely, in EPA Region I. Narragansett Bay Project might qualify for such funding (e.g., for data monitoring assistance) due to its status as a recipient of EPA funding. Katrina Kipp of EPA Region I will investigate this program if there is interest.

FINANCIAL INFORMATION:

Account Identification: Not applicable.

Obligations: (Grants) FY 87 $11,293,115; FY 88 $13,000,000; and FY 89 est not available

Range and Average of Financial Assistance: $7,000 to $1,366,000; $120,139.

ELIGIBILITY REQUIREMENTS:

Applicant Eligibility: Private, nonprofit organizations designated by the Secretary of Labor under Title V of the Older Americans Act of 1965.

Beneficiary Eligibility: Federal, State, and local environmental agencies and individuals 55 years old or older.

Credentials/Documentation: The Environmental Programs Assistance Act of 1984 requires a certification by the Federal, State or local agency that is to receive the SEE workers that the grant/cooperative agreement will not displace any Federal or State workers, prevent the rehiring of any laid-off Federal/State workers or affect existing service contracts.

APPLICATION AND AWARD PROCESS:

Preapplication Coordination: Discussion with the Headquarters of Regional Office is advisable. Applications that involve designating SEE enrollees to assist State/local environmental agencies are eligible for coverage under E.O. 12372, "Intergovernmental Review of Federal Programs." This program is eligible for coverage under E.O. 12372, Intergovernmental Review of Federal Programs. An applicant should consult the office or official designated as the single point of contact in his or her State for more information on the process the State requires to be followed in applying for assistance, if the State has selected the program for review.

Application Procedure: Requests for application forms and completed applications must be submitted to: Environmental Protection Agency, Grants Administration Division, (PM-216), Washington, DC 20460. A copy of the completed application should also be sent to: Patricia Powers, Office of Exploratory Research (RD-675), Washington, DC 20460.

Award Procedure: Each application shall be subjected to administrative evaluation to determine adequacy of application in relation to assistance regulations, and to program objectives.

Deadlines: None.

ASSISTANCE CONSIDERATIONS:

Formula and Matching Requirements: The program has no statutory formula; a minimum of 5 percent cost sharing is required.

Length and Time Phasing of Assistance: Usually one to three years.
PROGRAM ACCOMPLISHMENTS: In fiscal year 1987, 94 awards totaling $11,293,115 were made. In fiscal year 1988, 300 awards totalling $13,000,000 were made.

CRITERIA FOR SELECTING PROPOSALS: Number of older workers employed by applicant; administrative cost to operate proposal; fringe benefit package offered to older workers under proposal; and qualification of applicant and staff.

INFORMATION CONTACT: Katrina Kipp, U.S. EPA Region 1, 617 565-3523

POTENTIAL FUNDING SOURCES FOR A STATEWIDE WATER QUALITY MONITORING PROGRAM IN RHODE ISLAND

Introduction: The Value and Varieties of Water Quality Monitoring

Monitoring of environmental parameters is fundamental for understanding the physical, chemical, and biological processes of the Narragansett Bay and for separating natural inputs from human-induced effects upon the Bay and its resources. Reliable monitoring data are essential for decision-making by regulatory agencies in order to responsibly manage the Bay. Comprehensive monitoring of water, sediment, biota (plants and animals), and other factors are important to detect the long- and short-term effects of human activities and pollution control programs.

A comprehensive monitoring program can be divided into four major categories:

1. **Ambient monitoring** or routine, long-term monitoring at fixed locations at regular intervals. Water and sediment quality and biological resources would be monitored in an ambient program.

2. **Discharge monitoring** of point sources (municipal, industrial, and commercial facilities, as well as combined sewer overflows) and nonpoint sources to the Bay.

3. **Intensive surveys** or short-term monitoring programs to identify sources and control measures, oriented to the identification and solution of problems.

4. **Other programs** such as monitoring changes in shoreline and habitat, weather, and demographics.

Monitoring Required in Narragansett Bay for Congressionally-Mandated Data

As a condition of dispensing funds under the National Estuary Program, the U.S. Congress expects a biennial report on the prevailing water quality in the Narragansett Bay. Supplying the data requested by Congress will require fairly extensive -- and in some cases, expensive -- testing. Conservative projected annual budget needs range from $250,000 to $500,000, fluctuating yearly due to the sporadic nature of certain tests. Sediment analysis, for example, may be performed only every 5 years, whereas tissue analysis is likely to be needed every 2 to 3 years. Given the recurring nature and significant expense of the required monitoring effort, a stable long-term funding source ought to be found. This piece explores funding sources used for testing programs elsewhere in the nation and discusses possible funding sources for monitoring in the Narragansett Bay and its tributaries, focusing primarily on ambient and discharge monitoring efforts.

Present Water Quality Monitoring in the Narragansett Bay

At present, a very limited amount of water quality testing is performed in the Narragansett Bay by the Rhode Island Department of Environmental Management, Division of Water Resources. For the most part, it is limited to checking for compliance with standards established by the National Shellfish Sanitation Program and is done only in marine waters to the exclusion of any fresh waters. For this purpose, fecal coliform, temperature, and occasionally other tests (e.g., dissolved oxygen) are performed at least 5 times annually in approved shellfishing areas and at least 12 times in conditionally approved areas. According to information provided by this Division, funding for these tests comes directly and entirely from the U.S. EPA.

Funding for Monitoring Programs: the Experience Elsewhere

Unfortunately, at the present time very few good models of comprehensive monitoring on the scale anticipated for the Narragansett Bay are in place elsewhere, making the experience of other programs a poor source of funding ideas. Moreover, those water bodies having such programs tend to receive most or all of their funds from either the U.S. EPA or the host state's general fund, providing few examples of creative, beneficiary-based financing.

To briefly survey, funds for water quality monitoring in the Chesapeake Bay and the Great Lakes International Surveillance Program derive predominantly from line items in the EPA's annual budget. Although the relevant budget entries are identified for general program purposes rather than specifically for monitoring, they provide a tremendous pool of funds that program managers can and do access for assaying water quality. Funds for monitoring in the Long Island Sound and the Albemarle/Pamlico Sound are also largely from EPA and state general revenue sources.

Several isolated alternative funding sources are in place and contribute small amounts to monitoring efforts, but no consistent or important programs along these lines were located. The State of Maryland, for example, which is in the Chesapeake Bay watershed, raises funds by means of an income tax check-off that allows voluntary contributions to be made to the general Bay cleanup effort. In two years, over $900,000 has been raised this way, some of which has gone toward monitoring efforts. In addition, a portion of the funds collected for fishing licenses is directed to testing the safety and edibility of the fish catch. Some but not all of this expense is covered through this fee diversion.

Water Quality Monitoring in Puget Sound: A Model Program, But Not Fully Funded

A carefully crafted comprehensive monitoring program, the result of intensive research and scrutiny of testing methods and data requirements, was recently adopted for the Puget Sound estuary, including all of the Sound and its freshwater tributaries. It addresses eight separate task areas, among them contaminated sediments, tissue toxicity, and birds and marine mammals.

Projected annual budget requirements are predictably quite large, currently $3.2 million when operating at full scale. At present, however, funding has been identified for only a little more than a $1 million effort, and not all of this money is secure and stable on a long-term basis.

In summary, roughly $800,000 is already embodied in current levels of departmental budgets, such as that of the Department of Ecology. As such, it may be considered a relatively secure source of funds. This includes approximately $500,000 for contaminated sediment testing. An additional $400,000 has been appropriated by the state legislature to the Puget Sound Water Quality Authority for use during the next biennium for monitoring, an average of $200,000 per year. Monitoring funds of approximately $150,000 per year are also provided through the National Estuary Program, although these are available only now during the new program's start-up phase; these will be discontinued once it has been established. As for the remaining $2 million needed to implement full-scale monitoring, a legislative appropriation remains the most likely solution. No alternative or beneficiary-based approaches are currently being considered for this unfunded gap. Recent legislation took the step of mandating the very testing embodied in the planned water quality monitoring program; while this does not guarantee funding from the legislature, it substantially increases the likelihood that at least some if not all the needed monies will come from an appropriation.

Washington state does have a special fund, the Centennial Clean Water Fund, devoted to cleaning up and maintaining the Puget Sound estuary. Its revenues are approximately $45 million annually, derived solely from a tax on cigarettes. None of this money goes for water quality monitoring per se, although it is possible some could go to local groups who may include monitoring in their activities. Still, it is not a source for the newly adopted comprehensive monitoring program nor is it an ideal model for funding such a program since its revenue base, cigarette sales, has no discernable link to Puget Sound's water quality.

Potential Funding Sources in Rhode Island

For the most part, water quality monitoring programs around the nation depend on federal gra... or state-level general funding for their operating budgets. Some areas, such as the Chesapeake Bay, also receive large recurring grants from private foundations. Program managers in Rhode Island may have less success with these methods, especially with appropriations from the general fund given the state's current large budget deficit. Moreover, equity concerns dictate that those responsible for the contamination which makes water quality testing necessary in the first place ought to bear the preponderance of the cost burden, rather than having it shifted onto the general population through taxes. Nonetheless, testing must be done regardless of who pays in order to conform with Congress's data requirements; thus, alternative funding sources should be sought.

Several ideas for potential alternative funding sources are explored here. In selecting these in particular, the operating theory is that the polluter should pay the costs of correcting the results of offending activities, including any necessary testing or monitoring. Therefore, any

activity generating substances potentially harmful to water quality and likely to end up in fresh or marine waters is a candidate for sharing water quality monitoring costs. Depending on prevailing local philosophies, an argument may also be made that those enjoying the use of public waterways even without impairing their quality (e.g., sailboaters or swimmers) ought also to be liable for some of the costs of testing because of their enjoyment of Bay resources. A counter argument, however, is that such enjoyment without impairment is a birthright and ought not to be subject to taxation.

Because sources of pollution in Rhode Island's waters are diverse, no one group should bear most or all of the financial burden of testing. Rather, it would seem more equitable and less painful to those being taxed (and thereby more politically feasible) to spread the cost among many groups in a broad-based fashion in accordance with the actual incidence of pollution. Moreover, should additional funds be needed, small increments to existing taxes and fees are more easily achieved if these charges are low to begin with, which a broad approach would allow. Conversely, administrative efforts may rise slightly as more revenue sources must be accounted for, although this should be a minor increase under present accounting procedures.

When selecting taxes, fees, or surcharges, it may be desirable to choose those that will send market signals to consumers about the true costs of their activities, especially heretofore neglected environmental costs, such that behavior may be altered in desirable ways. It must be borne in mind, however, that to the extent these increased costs are effective in causing people to shift their behavior away from the activity in question, revenue collections may be diminished and other sources will need to be sought.

If taxes, fees, and surcharges are to be relied on to fund a water quality monitoring program, their receipts must be dedicated to this purpose rather than sent to the General Fund for subsequent appropriation. As Rhode Island's current experience with a budget deficit has shown, even revenue restriction is not always enough to guarantee that funds will not be expropriated for other purposes, but it substantially reduces the likelihood of this happening. As has been discussed elsewhere[1], revenue dedication may prove difficult in Rhode Island, although today's political climate may be more receptive to revenue dedication for environmental purposes. For fiscal management, a central "enterprise account" for water quality monitoring may make the most sense and would not preclude the division of monitoring responsibilities among state agencies. The findings herein are not claimed to be exhaustive. No doubt other activities can be identified which ought to bear some of the expense of testing.

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[1]See "Inventory of Funding Sources for Cleanup and Maintenance of the Narragansett Bay," by Apogee Research (January 1990), available through the Narragansett Bay Project, Rhode Island Department of Environmental Management.

TABLE 1. SUMMARY OF PROPOSED REVENUE SOURCES FOR STATEWIDE WATER QUALITY MONITORING PROGRAM

INSTRUMENT	RATE CHANGE	YIELD
TAXES		
Point-of-sale taxes on specified goods (e.g., oils, pesticides, hazardous items)	N/A	Unknown
INCREASES TO EXISTING FEES		
Registration of Pesticide Products	+ $5	$25,000
Licensing and Certification of Pesticide Applicators	+ 100%	$15,000
Outboard Motor Registration	+ 100%	$50,000
Registration of Boats	+ 25%	$100,000
Fishing and Shellfishing Licenses	+ 5%	$60,000
PROPOSED NEW FEES OR SURCHARGES		
Drainage Fees	N/A	High
Surcharge on Sewer Use Fees	N/A	Moderate
Surcharge on Air Emissions Permits and Automobile Registration Fees	N/A	High ($250,000)
Surcharge on Wastewater Discharge NPDES Permit Fees	N/A	Moderate
ISDS Fees	N/A	Low
Marina and Mooring Fees	N/A	Unknown
Volunteer Efforts	N/A	N/A

TAXES

Point-of-sale taxes could be levied on substances having a questionable or deleterious impact on water quality and likely to reach public waterways or the Bay. This should be interpreted as broadly as possible, including items such as:

- o Tires, motor oil, and gasoline, which may accumulate on surfaces and be carried away with stormwater runoff;
- o Hazardous materials, which may enter fresh and marine waters as a variety of point and nonpoint source pollutants;
- o Pesticides, herbicides, and fertilizers, which may contaminate storm and surface water runoff.

Precedent in Rhode Island for point-of-sale taxes to support related environmental remedies exists in the Beverage Container Tax, the Litter Control Fee, and the recently initiated Hard to Dispose of Materials Tax, which levies fees on sales of Motor Oil, Organic Solvents, Anti-freezes, Tires, and Automobiles. (Collections not yet available.)

INCREASES TO EXISTING FEES

Several existing fees collected by the state may be good candidates for increases devoted to water quality monitoring.

- Registration of Pesticide Products

  Raised in December 1989 from $50 per product per year to $65, these annual registration fees charged to pesticide distributors go into a restricted account supporting the Pesticide Relief Fund. This fund pays for Integrated Pest Management research and for emergency relief efforts in the event of pesticide contamination. The recent $15 increase is a surcharge that will be used to fund mosquito abatement efforts. At the new fee level, annual revenues are expected to fall between $300,000 and $325,000. Should this be considered as a water quality monitoring funding source, an additional $5 charge would generate approximately $25,000 annually assuming present pesticide registration levels.

- Licensing and Certification of Pesticide Applicators

  The harmful effects of pesticide residues on water quality and aquatic life are well known, and a thorough monitoring program would include periodic checks for these effects. The Department of Environmental Management currently charges annual registration and certification fees for pesticide applicators which produce revenues of approximately $15,000 per year. At present, fee levels are relatively low:

Private applicators:	$5
Commercial licenses:	$10
Commercial certificates:	$15
Dealer licenses:	$10

  These fee levels might be increased; if doubled, they would provide an additional $15,000 to support water quality monitoring efforts.

- Outboard Motor Registration

  Motor fuels, oil, and exhaust from outboard motors are a source of harmful pollutants to the Bay and its tributaries. Currently, the Department of Environmental Management charges a one-time fee of $5 for the registration of outboard motors on boats. Proceeds from this fee flow to the general fund. This fee could be raised, perhaps doubled, to supply funds for water quality monitoring.

If it were doubled, it could bring in approximately $50,000 for monitoring.

o Registration of Boats

Currently, all motorboats in Rhode Island pay annual registration fees based on boat length. Fee revenues are placed into a restricted account dedicated to boating safety purposes. The present fee structure is as follows:

Under 16 feet:	$10
16-25 feet:	$15
26-35 feet:	$25
36 feet and over:	$35

Annual revenues from this fee are approximately $400,000. A 25% increase in these fees could yield $100,000 for use in a water quality monitoring program.

o Assorted Fishing and Shellfishing Licenses

Rhode Island currently charges an assortment of annually renewable marine fishing and shellfishing licenses. The first $200,000 collected from each license goes into the General Fund. Any further collections go into a restricted account to be spent on related purposes. Nearly all of these fees are $100. Given current levels of fee collection, a 5% ($5) increase in these fees would yield roughly $60,000 which could be used for water quality monitoring costs.

SUGGESTIONS FOR NEW FEES OR SURCHARGES

- Drainage Fees

  Given the nonpoint source nature of many waterway contaminants, a sensible funding source for water quality monitoring would be acreage- and permeability-based fees levied on individual land parcels for storm and surface water management. Such fees are best collected through a stormwater utility, of which there are currently none in Rhode Island. However, these utilities may become prevalent in the future, providing a stable and broad-based financial support for monitoring. If funds collected through stormwater runoff utilities were used for a testing program conducted at the state level, equity concerns dictate that all parcels within the state must be charged such fees, necessitating that all parcels be included within the boundaries of a utility, or that special billing arrangements be made for those not.

- Surcharge on Sewer Use Fees

  Point source discharges from wastewater treatment plants create the need for thorough discharge monitoring. To fund more extensive monitoring necessitated by discharged treated effluent, surcharges could be placed on sewer use fees paid by residences and businesses hooked up to public sewer systems. It is unclear how much revenue could be raised this way, but modest surcharges could make a tremendous impact on monitoring costs. Should surcharges be considered, they should ideally be linked to the quantity of wastewater generated. However, because water use metering is not present in all Rhode Island communities, a flat rate might be used instead. Given local disparities in treatment charges per unit of wastewater, the surcharge should not be calculated as a percentage of the sewer bill.

- Surcharge on Air Emissions Permits and on Annual Truck and Automobile Registration Fees

  Atmospheric deposition is a significant source of pollutants to the Narragansett Bay and its tributaries. Any exhaust-producing operation, from industry to automobiles, can produce pollutants which either settle out of the air directly onto the surface of the water, or more significantly, are deposited on solid surfaces and wash into these water bodies as stormwater runoff.

  Rhode Island administers a permitting process for stationary sources of air

pollution (e.g., smokestacks), currently handling approximately 1,000 permits annually. Very recently, fees began to be charged in conjunction with permitting. Annual fees range in cost from $1,200 to $25,000, depending upon specific permit complexity. Because these fees have been in effect only for several weeks, it is not known what annual collections will be. However, assuming an average permit fee of $5,000 and a total of 1,000 permits, a 5% surcharge on the permit fee would yield $250,000 annually for water quality monitoring and would increase average permit costs by $250.

Similarly to stationary sources, automobiles, trucks, buses, and other mobile sources of air pollution are likely candidates to support water quality monitoring efforts. A small surcharge on annual registration fees could yield a significant and stable source of funds for such testing.

o Surcharge on Wastewater Discharge Permit Fees

All commercial and industrial establishments in Rhode Island discharging wastewater either directly into public waterways or into sewer systems are required to hold renewable wastewater discharge permits ensuring compliance with standards established in the Rhode Island Pollution Discharge Elimination System. Many are required to pretreat their wastewater prior to discharge to eliminate a broad range of impurities ranging from grease (e.g., food establishments) to hazardous solvents (e.g., plating industry). For the most part, these permits and the associated inspection and monitoring are administered at the local government level by permission of the Department of Environmental Management. Fees are charged to permit holders to support this administrative effort.

Although current fees cover monitoring of these discharges in the wastestream (i.e., in the pipe on their way to a treatment facility), no funds are recouped for testing once these discharges have been released into the environment after treatment. A number of water quality officials surveyed for this report felt that charges should be made in support of environmental testing, as wastewater treatment cannot be guaranteed to remove all environmentally harmful substances in sufficient concentrations. Surcharges or fees attached to discharge permits could provide some testing support and could be easily administered through the existing permitting process.

o ISDS Fees

Individual Sewage Disposal Systems (ISDS) may have both negative groundwater and surface water impacts, indicating the prudence of frequent water quality monitoring. Currently exempt from any fees, inspections, or other operational

requirements once satisfactorily installed, ISDS are good candidates for contributions to a statewide monitoring program. To this end, an annual fee levied on ISDS might be an equitable approach. Precedents exist elsewhere for such charges, most often to fund aquifer testing but sometimes including surface waters as well, particularly in areas of multiple documented ISDS failures such as there are in Rhode Island. Two examples are Spokane and Thurston Counties, Washington, where the portion of the fee devoted to testing ranges from $15 to $26 annually. It is not known how many ISDS now operate in Rhode Island, so fee collections could not be estimated.

- Marina and Mooring Fees

The activities of marina clients may add to the need for periodic water quality monitoring measures, making them likely candidates for financial support of such a program. Most marinas in the state are privately owned and managed, and reliable information on their numbers was not obtained for this report. A fee may be applicable to marinas and moorings and any other similar establishments which could be used to fund any water quality testing necessitated by their activities.

Volunteer Efforts

Volunteer monitoring programs, such as the very successful "Stream Team" sponsored by the storm and surface water utility in Bellevue, Washington, may be an inexpensive source of help with some monitoring tasks. Bellevue has had good experience working with organized civic groups whose volunteers very ably supplement and even supplant departmental tasks, including some water quality monitoring activities. Perhaps, however, the promotion of community awareness, participation, and stewardship responsibilities is perhaps their best feature. Observation and data collection tend not to be their strongest points because of quality assurance problems. However, when tied to ambient monitoring programs, citizen efforts can be very inexpensive, cost effective ways to collect samples for professional analysis elsewhere, freeing up expensive professional staff resources that would otherwise need to make onsite visits. For further information about the Bellevue "Stream Team" program, contact Sarah Hubbard Gray, (206) 453-4895.