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FINANCING PUBLICLY OWNED TREATMENT WORKS AND INSTITUTING ENFORCEMENT MEASURES AGAINST NON-COMPLIANT WORKS UNDER THE CLEAN WATER ACT

BY VALENTINA O. OKARU*

SECTION ONE

INTRODUCTION: NATURE OF THE PROBLEM

Evidence of Poor Performance; Reasons For and Nature of Municipal Non-compliance\(^1\) With the Clean Water Act (CWA).\(^2\)

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1. A facility may not comply with its permit in several ways. For instance, it may have discharges with pollutant concentrations exceeding the permit’s effluent limitations, it may fail to meet planning or construction requirements in a permit or agreement. The facility may fail to submit relevant reports and may not prepare or enforce a required pretreatment program. The nature of the violation is not relevant for purposes of my study.

Reports\(^3\) illustrate that of the rivers and streams in the United States that do not meet their state water quality standards, 17 percent are failing because of pollution from publicly owned treatment works (POTWs or publicly owned waste water treatment facilities) while 22 percent of estuaries are polluted primarily because of POTWs.

Municipal waste waters generally consist of domestic wastes and toxic substances used in some homes and in manufacturing and commercial establishments. The toxic substances include motor oil, paint, household cleaners, and pesticides. Toxic pollutants pose a serious threat to people and animals.\(^4\) The nation's sewers collect the flow of used water from homes, commercial establishments and industry. The wastes are transported to a sewage treatment plant. The Environmental Protection Agency estimates that about 37 percent of toxic industrial compounds entering the nation's waters and estuaries pass from industry through POTWs.\(^5\) Some of the 34 million gallons of waste water

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5. EPA, Environmental Regulations and Technology: the National Pretreatment Program 4 (July 1986). To address the problem posed by industrial discharges to public sewer systems, the 1972 Federal Water Pollution Control Act Amendments established the National Pretreatment Program. The program required all industries discharging waste water into POTWs to clean up or pretreat their waste water. I shall not deal with the problem of discharging industrial wastes into POTWs but shall deal with matters concerning discharging wastes from POTWs into the nation's waterways.
collected by the nation’s sewers each day from households,\textsuperscript{6} commercial enterprises and industries contain toxic substances. A Palo Alto, California treatment plant determined that up to 81 percent of the silver entering the facility comes from non-industrial sources.\textsuperscript{7} Additionally, a study estimated that up to 26 percent of the Zinc and 22 percent of the copper and cyanide that entered a Palo Alto plant came from households.\textsuperscript{8}

In 1989, the United States Environmental Protection Agency (EPA) conceded that over two-thirds of the nation’s 15,600 waste water treatment plants failed to comply\textsuperscript{9} with CWA standards.\textsuperscript{10} According to a survey conducted in 1988 by the General Accounting Office (GAO), non-compliance is more rampant in small communities.\textsuperscript{11}

Surveys conducted as early as 1980 illustrate that municipal facilities constituted approximately 26 percent of all effluent

\begin{enumerate}
\item GAO, 1991 Nonindustrial Waste Report, \textit{supra} note 4. Households account for about 15 percent of regulated toxic wastes entering treatment plants. EPA estimates that as industrial pollutants entering POTWs decrease, the toxic pollutants entering treatment plants from both household and commercial pollutants will increase and will account for about two-thirds of all toxic chemicals discharged to treatment plants.

\item \textit{Id.} Nonindustrial pollution threatened aquatic animals in the South San Francisco Bay. Hence, the plant imposed limits on silver discharges from commercial photo processors, hospitals and dental offices.

\item \textit{Id.}

\item The word "compliance" as used by the EPA signifies the installation of treatment equipment capable of meeting the "best practicable technology" (BPT) effluent limitations when properly operated.


\end{enumerate}
During the same period, 87 percent of all POTWs frequently violated their discharge limitations and thirty-one percent of the violators exceeded discharge limitations over fifty percent of the time.\(^\text{14}\)

In reaction to the municipalities' inability to construct the sewage facilities required to comply with the 1977 deadline and the federal government's failure to make funds available in time to achieve the limitations by July 1977, Congress enacted the Clean Water Act of 1977 (the 1977 Act).\(^\text{15}\) The 1977 Act amended section 301(i) of the CWA\(^\text{16}\) by providing the opportunity for municipalities to apply to the Administrator for an extension of the 1977 compliance deadline to July 1983.\(^\text{17}\) Additionally, Congress abolished the 1983 standards and provided for waivers of secondary treatment standards in some settings where municipal sewage is dumped into coastal waters.\(^\text{18}\)

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13. GAO, Rep. by the Comptroller General of the United States, Costly Waste Water Treatment Plants Fail to Perform as Expected 9 (Nov. 1980).

14. Id.


17. West Virginia Dept. of Natural Resources, National Pollutant Discharge Elimination System, Municipal Waste Section, Permit Files (1987). The 1977 Act makes a distinction between so-called conventional pollutants (organic matter, suspended solids, bacteria, Ph), which was the main focus of the 1972 Act and toxic pollutants. It is my view that by extending the 1977 compliance deadline, Congress indirectly recognized that a shortage of federal funds had hindered local compliance with the conditions specified in the CWA and that efforts should be made to provide federal grants to municipalities for the construction of sewage treatment plants.

18. Coastal Variance provisions, § 301(h) of the 1977 amendments to the 1972 Act. 33 U.S.C. § 1311(h) (1988). For instance, primary treatment is adequate for limited wastes that are produced by Alaska's small coastal communities such
Despite legislative attempts to shift the deadline for POTW compliance, the general performance of municipal sources was and still is poorer than that of industrial sources. For instance, as early as 1980, over 50 percent of all municipal dischargers were out of compliance with the 1977 secondary treatment level requirements, while as many as 80 percent of industrial dischargers succeeded in meeting the same deadline for compliance. By 1981, sewage from POTWs was still the main source of pollution contaminating the nation's waterways. For example, in 1981, over 10,000 municipal dischargers, particularly those in small rural areas, were still unable to meet the earlier deadline (July 1977) for achieving secondary treatment level.

Consequently, Congress again altered section 301(h) of the 1972 CWA by enacting the Municipal Wastewater Treatment Construction Grant Amendments of 1981, which permitted municipal dischargers to apply to the Administrator to extend the deadline to July 1, 1988. Nevertheless, there was not a great improvement in the level of compliance. In 1986, 37 percent of municipal facilities were still not in compliance. As of 1986, municipal dischargers accounted for almost twice the amount of effluent disposed of through small diameter ocean outfalls.


22. EPA, Environmental Progress and Challenges: EPA's Update 46, Fig W-1 (1988).
stream pollution caused by industry sources.\textsuperscript{23} In 1992, 90 percent of industrial waste water treatment facilities in New York state were still in compliance with state permit requirements as compared with 81 percent of POTWs in the state.\textsuperscript{24}

\textbf{FOCUS, PURPOSE AND PROPOSED STRUCTURE OF THE PAPER}

Given the higher level of municipal non-compliance in relation to industries, my paper will focus on enforcement against publicly owned treatment works, especially as most studies have concentrated on measures against private facilities\textsuperscript{25}. However, where relevant, I will discuss enforcement measures against industries, including why there is such a disparity between firms and districts in the level of compliance. Additionally, I will focus primarily on those small\textsuperscript{26} to medium sized communities where there are more cases of the water pollution resulting from POTW non-compliance.

My ultimate aim is to effectively deal with the problem of POTW non-compliance at its roots by exploring the major

\textsuperscript{23} Id. POTWs cause 17 percent of stream pollution while industries cause 9 percent of pollution. Even as early as 1977, only 40 percent of municipal sources caused water pollution compared to 80 percent of industrial dischargers.


\textsuperscript{26} Between 1972 and 1980, small communities (consisting of less than 10,000 people) in the United States constituted 38 percent of the national population while large communities (comprising more than 100,000 people) represented 31 percent of the national population during the same period. GAO, 1992 Revolving Funds report, \textit{supra} note 11, at 37.
underlying causes of poor municipal performance, particularly pitfalls in the mode of financing and deficiencies in the enforcement mechanism.

Therefore, in section two, I will examine the deficiencies in the mode of financing and investing in waste water treatment facilities. This will include an examination of the former Title II Federal Grants Program and the current Title IV State Revolving Fund Project. Additionally, I will explore the possibility of adopting alternative means of financing and investing in such plants.

In section three, I will examine the shortcomings in the remedies imposed against POTWs for violating the relevant provisions of the CWA. In evaluating the reliefs, I will explore a number of factors, including economy (cost effectiveness), fairness and effectiveness of measures taken by public and by private enforcers against non-compliant publicly owned treatment works. Additionally, I will address the role played by the various arms of government, particularly the judiciary and the

27. For a better understanding and an illumination of the problem, I will conduct a historical analysis of the mode of financing and investing in POTWs.

28. To limit the scope of the paper, my discussion will focus primarily on remedies including civil penalties, environmental project funds (credit projects), criminal sanctions, injunctive relief, sewer moratoria, receivership.

29. That is, whether or not the remedy will eliminate the causes of violations.

30. Most studies have not addressed the effectiveness of various remedies and the impact of such measures on POTW compliance.

31. The various arms of government include the judiciary (courts), the legislature (Congress) and the executive (public agencies). All power and duties of government stem from the main structure of the Constitution of the United States. The Constitution of the United States sets up a government of separated, divided and limited powers. See generally, Lawrence Tribe, American Constitutional Law (2d ed. 1988). Power is divided not only horizontally among the branches of the federal government but also vertically between the United States and sovereign states. To limit the scope of my paper, I will not focus on the relationship between federal and state enforcement agencies.
legislative branch, in shaping the enforcement model. In section, four, I will conclude by summarizing the main points and making some additional recommendations.

SECTION TWO

PITFALLS IN THE MODE OF FINANCING AND INVESTING IN PUBLICLY OWNED TREATMENT WORKS AND SHORTCOMINGS IN THE IMPLEMENTATION OF TITLE II AND TITLE IV

Investments; Financial Inability to Comply:

Between 1972 and 1984, the investments of the federal, state and local governments totalled more than $55 billion. From 1972 through 1982, the availability of funds, particularly federal grants, resulted in the completion of 9,000 sewage treatment systems and supported the installation of an additional 8,000 facilities. Between 1972 and 1988, the EPA provided over $45 billion in federal grants to enable local communities to install and upgrade sewage treatment facilities, while state and local governments contributed $6 billion during the same period.

32. My focus on the enforcement model should not be misinterpreted to imply that the model is always the best means of dealing with those that fail to comply with the provisions of the CWA. There are other means of dealing with violators, such as negotiations. However, to restrict the extent of my paper, I will not discuss such alternative means of dispute resolution.

33. EPA, 1984 Needs Survey Report of Congress; Assessment of Needed Publicly Owned Waste Water Treatment Facilities in the United States, 26 (Feb. 1985). Most of the investments were in California and East of the Mississippi River while the per capita investment was in Alaska.


35. Id.
Approximately half of the cities served by non-compliant sewage plants were and still are financially depressed. Unmet resource needs, particularly in small communities, are a threat to local water quality and health. Without sufficient federal funds and without alternative means of financing, municipalities, particularly small districts, are unable to hire the necessary and qualified technical and administrative staff to design and to install good quality and cost efficient waste water treatment facilities. Being unfamiliar with technical aspects of POTWs, some areas including the Malden Public Service District often seek advice from fly by night engineering consulting firms who improperly install and design poor quality treatment plants. Consequently, the badly designed and complex waste water treatment facilities including those that are inefficiently operated and maintained pollute waterways.

Despite the operation and maintenance problems, the federal government was unable to invest sufficient funds on enhancing

36. Sewage Treatment: Rockefeller to Propose Deadline Extension for Municipal Sewage Treatment Requirements, 19 Env't Rep. (BNA) 177 (June 3, 1988). These cities have per capita incomes that are less than seventy-five percent of the national average.

37. GAO, 1992 Revolving Funds Report, supra note 11, at 35.

38. Construction of Sewage Treatment Technology is a very expensive proposition, particularly in communities located in the mountainous regions of West Virginia.

39. Interview With Manager, Malden Public Service District, Sewage Treatment Plant, West Virginia, October 1992. To discourage incompetent participation by engineering consulting firms, the CWA provides that these firms would be held responsible for any deficient POTW installed by them (engineers). Where the POTW does not function within one year after construction, the engineering firm responsible for installation shall be held responsible and liable. 33 U.S.C. § 1284 (d)(3) (1988).
operation and maintenance training programs.\(^40\) For example, although the 1972 Act initially authorized $7.5 million dollars annually for POTW operator training programs,\(^41\) Congress continually reduced the funds. Thus, by 1982, annual authorizations were slashed down to only three million while no specified sums were authorized for fiscal year 1983 through 1985.\(^42\) Moreover, the problem of inadequate federal funding for training programs was further aggravated by the failure to appropriate all the amount that Congress had authorized for such programs. Annual appropriations was less than half the amount annually authorized by Congress.\(^43\)

Financial inability to comply with the CWA stems primarily from deficiencies in the mode of financing and investing in such facilities. The inadequacies in the system of financing and investing in sewage plants include shortcomings in the implementation of Title II of the CWA\(^44\) (Federal Construction

\(^{40}\) With a number of factors, including operation and maintenance problems, growth in the number of treatment facilities, increase in the amount of sewers in service and in the percentage of households to be served, there should have been an increase in operation and maintenance expenditures.

\(^{41}\) Sections 104(g)(1) and 104(u)(2) of the CWA, 33 U.S.C. §§ 1254 and 1254(u)(2).

\(^{42}\) Congress authorized such sums as may be necessary for fiscal years 1983 through 1985.


\(^{44}\) Pursuant to the 1972 Act, the federal government assumed 75 percent of the cost of constructing waste water treatment facilities while the state and local governments were to share the remaining 25 percent of capital costs. The pitfalls
Grants Program) and of Title IV of the CWA (State Revolving Fund (SRF)).

In recognizing that construction of sewage treatment plants was an expensive proposition, Congress established the Federal Construction Grants Program as Title II of the CWA in 1972. The program authorized municipalities to obtain grants from the federal government. Hence, the federal government assumed 75

in the implementation of Title II include an unfair system of distributing federal grants; delays in administrative procedures, particularly in planning projects and processing applications resulting in failure to meet the secondary treatment deadline; some local resistance to the Title II construction grants program; the impoundment of authorized federal grants; the high federal share of construction costs and the inadequate local share resulting in a lack of local incentive.

45. Being administered by states, the State Revolving Funds (SRFs) are funds that loan money provided by the federal capitalization grants and state matching funds for waste water treatment programs or other projects. Most SRF loans carry an interest rate of between 2 and 5 1/2 percent. By September 1990, 50 states and Puerto Rico had established State Revolving Funds and received at least one capitalization grant from the Environmental Protection Agency. Unites States EPA Report to Congress, Vol 6, No. 2 Small Flows (April 1992). The state is authorized to loan money to municipalities at low interest rates. The funds are paid back into the state capitalization funds. The pitfalls in the SRF include a biased system of allocating loans in favor of large communities; disincentives to private sector competition with public financing; the impediment to public private partnership; and the restriction on the use of the SRF to purchase land.

46. The Title II construction grant program is the second largest and most expensive public works project ever to be implemented. The only other public works program ever to receive larger grants is the National Highway program. Section 101(a)(4) of the CWA, 33 U.S.C. § 1251(a)(4) (1988).

47. One of the long term goals of the program is to reduce the dumping of municipal wastes into waterways and to protect public health.

percent of construction costs while the state and local governments were responsible for the remaining 25 percent of capital expenses.

Congress authorized funds worth $18 billion for the fiscal year 1973 through 1975. To implement the authorization, the legislature appropriated $5 billion for fiscal year 1973, $6 billion for fiscal year 1974 and as much as $7 billion for fiscal year 1975.49

Local Resistance to Title II; The Free Rider Problem:

After the enactment of the 1972 Act, there was initially some local resistance to the implementation of Title II construction grants. In particular, small semi-rural communities that had septic tank systems50 were reluctant to contribute funds for the installation of treatment plants. Claiming that they were financially incapacitated, some districts hesitated to pay their share (25 percent) of installation costs which amounted to about $27 million.51

Some households were reluctant to pay user fees to their districts. All the waste waters from various households in a district flow into a connected sewer network of the municipality. The interconnected system is such that it is impossible to separate the waste waters flowing from different households. It is also impossible to shut off the waste water treatment service being provided to one household without affecting other connected households. The waste water treatment service, therefore has the characteristics of a public good. The good is non-rival in that consumption of waste water treatment by one party does not exclude the consumption of the same unit by another person. The waste water treatment service also has the characteristics of non-excludability in that if the service is provided, the producer (in this case, the municipality) is unable to prevent anyone from consuming the service or good. For instance, municipalities can not exclude


50. Interview With Manager, Malden, West Virginia, supra note 39.

51. Id. The average sewer bill was $22.50 a month.
households that have not paid for waste water treatment service from benefiting from the service. Households that have not paid user fees continue to utilize waste water treatment service and continue to benefit from clean waterways. Clean waterways are an end result of waste water treatment. Knowing that they would benefit from the provision of the good to other consumers that are willing and able to pay for the good, some consumers seek to be free riders. Hoping that services will be provided to other consumers that are willing and able to pay, some consumers that have not paid have the incentive not to reveal their true level of willingness to pay for the service.

To coerce financially capable consumers to pay for waste water treatment services, some states, including West Virginia, have enacted laws penalizing such customers\(^5\). By shutting off or discontinuing the water services, the consumer is prevented from generating waste water. The Code, *inter alia*, authorizes districts in collaboration with water companies to disconnect the water supply of a consumer who has failed to pay user fees for sewer services for a period of sixty days after the fee becomes due and payable. Owners, tenants or occupants have a duty under section 16-13A-9 to pay rates and charges for the district sewer plants from and after the date of receipt of notice that such facilities are available.\(^5\) The Malden Public Service District revealed a great improvement in their billing and collection system after this section of the Code came into effect.

Unlike larger communities, small districts normally face obstacles to funding waste water treatment services, especially as they lack the economies of scale that make such services affordable. Accordingly, the per household costs for waste water treatment facilities are often relatively high in small communities compared to larger districts, because the former cannot take advantage of economies of scale.

Unfair System of Determining Eligibility for Federal Grants:

The system of issuing grants was unfair to small communities. In allocating federal grants, federal regulations authorized states to give major priority to communities with the greatest discharge problems,\(^\text{54}\) regardless of their ability to pay the cost of dealing with the pollution.\(^\text{55}\) In providing state grants, states chose to provide supplementary state subsidies to cities that were already receiving federal funds rather than to provide monies to those unfunded districts.

Hence, small communities were not on the priority list and did not receive a fair proportion of construction grants because the funds went to larger communities with large facilities and large quantities of discharge.\(^\text{56}\) For instance, small cities represented 38 percent of the national population in the United States, but received only 19 percent of the grant money between 1972 and 1980.\(^\text{57}\) Large communities represented 31 percent of the total population, but received 47 percent of the grant monies during the same period.\(^\text{58}\) Such large communities received more than their fair

\(^{54}\) A community that discharges beyond the limit stated in its permit is more likely to receive federal or State funding to amend the violation even if the pollution was exacerbated by negligence on the part of the community in not spending any money to amend the problem. The preferential treatment given to such a negligent community is unfair to another district that has spent money to correct the violation but needs financial assistance to ensure sustainability in the operation and maintenance of its facilities. Other factors considered in allocating federal grants include the existing population affected and the need to preserve the environment and high quality water.

\(^{55}\) 40 C.F.R. § 35.915(a)(1) (1987); 40 C.F.R. § 35.915(a)(iv) (1987). States are permitted to consider the special needs of small and rural communities. But the state shall not consider the project area's developmental needs not related to pollution abatement.


\(^{57}\) GAO 1992 Revolving Funds Report, supra note 11, at 37.

\(^{58}\) Id.
share of grant money for a number of reasons including the existence in larger communities of the necessary technical staff to get projects to the construction phase. Besides, the effects of substandard water quality were greater in larger communities and EPA put more pressure on such districts to comply.59

Furthermore, due to a number of factors including substantial delays in issuing federal funds and in the facilities planning process of the grants program,60 less than 15 percent of the total funds ($18 billion) authorized by Congress for the period between 1973 and 1975 were actually spent.61 The implementation of the entire grant process62 for treatment facilities that cost less than $1 million dollars takes approximately 8 years while the process for projects that cost over $50 million takes over 11.55 years.63 With inflation, construction costs increase, making it more difficult for local governments to afford the installation of treatment facilities. As studies have shown, between 1970 and


60. Before the municipality (applicant) can be eligible to receive a federal grant, the Administrator (from EPA) has to be satisfied that the municipality has gone through the three stages of the grants program. The three steps include stage one facilities planning which involves an examination of the project needs and alternatives; step two (design stage) which entails the preparation of construction drawings and specifications; stage three (construction) which involves actual POTW installation. 40 C.F.R. § 35.903 (1983).


62. This includes the three main stages-facilities planning stage, design and construction phase.

1984, the price index for non-residential construction increased at the rate of 9.8 percent annually.64

Moreover, in anticipation of receiving federal grants, some local governments have delayed the construction and efficient operation/maintenance of treatment plants. To facilitate the grants program, attempts have been made to ensure that small communities with simple treatment requirements receive a single federal grant for installation of POTWs thereby avoiding the aforementioned three step grant process. Hence, treatment works that cost $8 million or less and serve a community consisting of 25,000 or less may receive such a single grant for the cost of designing and building the waste water treatment facility.65

As a result of pressures to balance the budget and to bring inflation66 under control, federal funding for the construction of municipal facilities was reduced from about an average of $6 billion a year in the early 1970s (following the 1972 Act) to an average of about $5 billion67 annually from 1979 through 1982. President Nixon confiscated $9 billion of the $18 billion that had been authorized by Congress under the Title II of CWA.68 Although the federal funds were subsequently released in accordance with the decision of the United States Supreme Court in Train v. New York,69 the initial impoundment of the funds no doubt hindered most municipalities from complying with the secondary treatment standard by July 1, 1977.

64. Id. at 1529.


66. The annual rate of inflation during this period was 7.8 percent. Hearings on Construction Grants Program, 1981, supra note 2, at 1529.

67. Id. According to experts, because of inflation, the value of $5 billion in 1977 had diminished to the extent that it was worth as little as $3.4 billion in 1972 dollars.

68. Supra note 63.

Additionally, Congress further exacerbated the money shortage problem by appropriating less than the amount it had authorized for fiscal year 1977 through 1982. For instance, although a total of $25.5 billion was authorized for fiscal year 1977 through 1982, only $16.9 billion was actually appropriated between 1977 and 1981. Between 1973 and 1982, the total authorization for the federal construction grants program was approximately $44 billion. Of the total amount ($44 billion), $34 billion was obligated and $25 billion was actually spent through 1981.

Arguments Against Increase in Federal Grants; High Federal Share of Construction Costs and Inadequate Local Share Resulting in Lack of Local Incentive:

One justification for an increased federal role in financing the construction of municipal treatment plants is that such funds are necessary to induce municipalities to comply with federal regulations requiring secondary treatment. But some studies

70. 33 U.S.C. § 1287 (1988). The total sum of $25.5 billion was distributed accordingly: $1 billion for fiscal year 1977, $4.5 billion for fiscal year 1978, and $5 billion annually for each fiscal year from 1979 through 1982. Id.


72. Fern Summer, Sewage Treatment: When the Federal Government Pulls the Plug, Envtl. Forum 9 (April 1986). $38 billion was appropriated by Congress.


74. The percentage of population whose wastes received at least secondary treatment (standard imposed by the 1972 Act) increased as a result of federal funding from 4 percent in 1960 to 69 percent in 1982, ten years after the enactment of the 1972 Act. Moreover, the percentage of people whose wastes received no treatment dropped from 63 percent to 8 percent during the same period. Council on Environmental Quality, 83-84 (1984).
illustrating the displacement of municipal spending by federal cost sharing, do not support the justification for providing such federal funds to municipalities. For instance, in the sixties, local governments financed most of the construction and operation costs of sewage treatment facilities. Local government spending (capital and operating costs) was between $4 billion and $5.5 billion a year, compared with federal spending which was between $100 million and $400 million annually. Municipalities accounted for 90 percent to 95 percent of total government spending. But between 1970 and 1977, federal grants to municipalities rose from $0.5 billion to $6.0 billion annually, while local capital spending decreased from $4.0 billion to $1.5 billion. To supplement the federal funds received by municipalities, some states covered between 10 and 20 percent of construction costs. Hence, communities were responsible for only 5 to 15 percent of such costs.

Some municipalities used federal grants to reduce the local and state financial burden for the construction of sewage treatment facilities that would have been installed in any event. For instance, local and state spending increased in 1972, but declined

76. Congress of the United States, Congressional Budget Office, Efficient Investments in Waste Water Treatment Plants 4 (June 1985). Some districts spent between $3 billion and $4 billion a year to install the facilities.
77. Id. The figures are a reflection of the substitution of municipal spending by federal grants. Total capital spending increased from between $4.0 billion and $5.0 billion in the 1960s to between $6 billion and $8 billion in the 1970s. But in the 1980s, total spending decreased primarily because of reduced federal grants and decreased local spending.
78. Therefore, progress and improvement in waste water treatment cannot be attributed solely to federal financial aid. James Jondrow and Robert A. Levy, The Displacement of Local Spending for Pollution Control by Federal Construction Grants, 74 Am. Econ. Rev. 174-78 (May 1984).
by more than 50 percent by 1982, ten years after the creation of Title II of the CWA.\textsuperscript{79} In support of the evidence, an econometric survey\textsuperscript{80} of federal and state spending revealed that each additional dollar of federal spending resulted in a reduction of municipal spending by 65 cents.

With local governments receiving such a high percentage of federal grants,\textsuperscript{81} capital expenditures for federally aided treatment plants were higher than necessary to achieve the required secondary treatment, especially as the communities had a very weak incentive: to monitor the engineering consultant’s work; to invest in cost effective design and technologies; to efficiently maintain and operate the facility and to match the design capacity of the plant with projected needs.\textsuperscript{82} For instance, in 1979, $3 million worth of federal grants was used to finance expensive, overly complex and sophisticated POTWs for 1350 residents in Greenville, Maine.\textsuperscript{83} Because of the facility’s high operational costs and frequent breakdowns, it (the equipment) was not accepted by the municipality. Subsequently, the POTW was closed in 1979.\textsuperscript{84}

\textit{Legal Requirements With Respect to POTWs and Federal Grants:}

Judicial measures were taken to ensure that districts would not rely solely on receiving federal grants and would not use the

\begin{itemize}
\item \textsuperscript{79} Id.
\item \textsuperscript{80} Id.
\item \textsuperscript{81} When the federal government assumed financial responsibility for 75 percent of construction costs of waste water treatment plants.
\item \textsuperscript{82} Surveys have confirmed that by substantially increasing the local share of costs, capital costs could be reduced by as much as 30 percent. U.S Congress, Congressional Budget Office, Efficient Investments in Waste Water Treatment Plants (1985).
\item \textsuperscript{83} The design of the facility was inconsistent with community needs. Environmental Quality, 1979 Annual Rep. 121 (1979).
\item \textsuperscript{84} Id.
\end{itemize}
lack of such funds as an excuse for not complying with the conditions specified in the CWA. For instance, a federal appellate court stated in 1977 in State Water Control Board v. Train\textsuperscript{85} that, "section 301(b)(1)'s effluent limitations are on their face unconditional; and no other provision indicates any link between their enforceability and the timely receipt of federal assistance."\textsuperscript{86}

The principle has been adopted by other federal appellate courts and district courts including a United States district court which held, inter alia, in United States v. Blytheville\textsuperscript{87} that municipal compliance with the secondary treatment requirement by 1988 should not be contingent on federal funding received.

Theoretically, municipalities were obliged to meet the 1988 deadline regardless of whether or not they had received federal funding. But in practice, the EPA, in recognizing that sewage construction is a highly capital intensive proposition, has not prosecuted many violators ineligible to receive federal funding.\textsuperscript{88}

Accordingly, the legal requirement has not deterred certain municipal waste water dischargers from non-compliance. Arguing that they are financially incapacitated, some municipalities are nonchalant about their failure to make an effort to comply with the CWA regulations. A survey illustrated that a local official said:

O.K., I have read the law, I know what it says, I know what the State and federal government are requiring of me. And I'm not going to do it. I don't have the money, I don't have the support, I don't have the need in my community to do it. I'm just not going to do it. And by the time the EPA

\textsuperscript{85} 559 F.2d 921 (4th Cir. 1977).

\textsuperscript{86} 559 F.2d at 924.


\textsuperscript{88} Jeff Robertson, Municipal Compliance With the Clean Water Act, 90 West Virginia L. Rev. 803 (1987).
figures out I didn’t do it and gets around to enforcing against me, I’ll be dead.\textsuperscript{89}

\textit{Legislative Response to Lack of Local Incentive; the Emergence of SRFs; Inequitable Mode of Determining Eligibility For SRFs:}

Furthermore, to increase the incentive for local governments to invest in more cost effective, innovative and alternative technology, Congress introduced a number of measures, including a reduction of the federal share of conventional construction costs and an increase in the federal share of construction of innovative and alternative technology.\textsuperscript{90} Additionally, the 1981 Municipal Waste Water Treatment Construction Grants Amendments reduced the federal share for the construction of conventional technology from 75 percent\textsuperscript{91} to 55 percent while the federal share for building innovative and alternative technology was reduced from 85 percent to 75 percent.\textsuperscript{92} Authorizations were reduced from between $4 billion and $6 billion a year (prior to 1982) to $2.4 billion a year for fiscal years 1982 through 1985.\textsuperscript{93} If innovative

\textsuperscript{89} Margaret E. Kriz, Effluent, Not Affluent, 21 Nat’l. J. 740, 742 (1989).

\textsuperscript{90} The figure was ten percent more than the federal share of conventional technology. The federal share of capital costs for alternative technology was initially 85 percent as opposed to 75 percent for conventional facilities. Section 1282 (a)(2) provided that after September 30, 1981, those communities that apply for Title II construction grants who use innovative and alternative technologies are entitled to a federal share of construction costs that is at least 20 percent greater than the grant allocated for conventional POTWs. 33 U.S.C. § 1282(a)(2) (1988). The total federal contribution in this case would not exceed 85 percent of total installation costs.

\textsuperscript{91} For programs that started before 1985, the federal government continued to fund 75 percent of construction costs of conventional sewage treatment plants.


\textsuperscript{93} Congress of the United States, Budget Office, Efficient Investments in Waste Water Treatment Plants 3 (June 1985).
and alternative systems failed within two years of completion, the municipality was entitled to receive 100 percent of all replacement costs, provided that the failure to meet design performance specifications was not due to negligence and had considerably increased capital, operation and maintenance costs. Some communities took advantage of federal incentives. Starting in 1981, the EPA awarded 700 innovative and alternative grants worth nearly $900 million. To encourage the development and use of innovative and alternative technology, the act provided that before an applicant (municipality) can be eligible for a federal grant, the municipality must demonstrate that innovative and alternative technologies have been fully surveyed, evaluated and studied.

To reduce the amount of federal funds spent and to encourage cost effectiveness, Congress restricted the number of projects that would be eligible for federal financial aid. Pursuant to section 218 of the CWA, federal funding to municipalities for the construction of sewage treatment facilities was contingent upon cost effectiveness and all POTWs were required to be the most economical and cost effective combination

97. In accordance with § 201(g)(1) of the CWA, 33 U.S.C. § 1281(g)(1) (1988), on or after October 1, 1984, federal grants would only be appropriated for "projects for secondary treatment or more stringent treatment, or any cost effective alternative thereto, new interceptors and appurtenances and infiltration-inflow correction." Office of Water, EPA, Financing Water Pollution Control, the States Role, (Draft) 5 (1982). Pursuant to the CWA § 201, 33 U.S.C. § 1286 (1988), Congress reduced federal funding for unnecessarily complex and advanced waste treatment technology and for advanced secondary treatment projects.
of devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage. Federal funding was discontinued for waste water treatment projects that exceeded the current needs of the community. Accordingly, the POTW reserve capacities that exceeded municipal needs were supposed to be financed by local communities.

However, most communities still prefer to use more complex and unaffordable waste water systems. Municipalities, including engineering consultants, regulators and administrative officials as well as users (members of the public), hardly trust low cost waste water treatment systems. Engineering consultants would rather have conventional sewage treatment plants which they can design and control. Furthermore, regulators and administrative officials are reluctant to face the economic and political risks of installing alternative technology. Hence, there is a preference for sewage treatment

100. Id.
101. The Marsh land (wetland) system, Arcata, Humboldt County, California.
103. The Marsh Land System of Sewage Treatment is used in Arcata, Humboldt County in California. 94 acres of newly created wetlands is used to provide low cost wastewater treatment technology. Sometimes after treatment, the water is clear and adequate for discharge into the Humboldt Bay. Being cheap and easier to build, the Marsh Land system should be economically attractive particularly to small poor communities with resource constraints. However, this low cost system requires 20 times the area or space used to install a high technology system. For example, between 2,000 and 3,000 acres of land would be needed to serve 8 million people with the Marsh treatment system. To deal with the problem of unavailability of land space, wetlands, degraded industrial/commercial property or degraded salt water marshes can be used to treat sewage.
105. Id.
technology that has been proven in terms of process of control, and an insistence on chlorinating water after low cost technology systems have been installed.

Additionally, to create more efficient\(^6\) government investment in waste water treatment facilities, Congress established the State Revolving Funds (SRFs) under Title VI of the Clean Water Act as amended by the Water Quality Act of 1987.\(^7\) The legislators envisaged that with the SRFs, the local government would develop user fees that better reflect operation, maintenance and replacement costs. Furthermore, the local government would assume more responsibility for the cost of plants and would seek less costly alternatives to meeting their needs. The borrowed funds were to be used to install, expand or upgrade the facilities as long as the plant was publicly owned. The only partnerships that are available for SRF financing are those that retain a public ownership, such as the contract operations. The restriction of public ownership limits communities in their choice of public/private partnership options.

States were required to set up capital programs through grants received from the federal government. As a condition to receiving capitalization grants from the federal government, states were compelled to provide matching amounts equal to 20 percent of the total grant and to use the money for a number of services, including the construction of waste water treatment facilities.

\(^{106}\) Congress was concerned that federal grants were providing inappropriate incentives to local governments, which led to underpriced wastewater treatment services and dependence on federal aid for constructing and replacing facilities.

\(^{107}\) Pub. L. 100-4, 101 Stat. 60 (1987) (codified at 33 U.S.C. §§ 1251-1376 (1988)). Congress shifted the responsibility for financing more than $83.5 billion in waste water treatment needs from the federal government to the States. The federal government was required to provide $8.4 billion in capitalization grants for State Revolving Funds over six years (between 1989 and 1994). When the capitalization grants program comes to an end, it will be the first time since 1956 that the federal government has not had a major role in financing waste water treatment plants.
Subsequently, states were expected to finance municipal projects with increased state grants and loans. States were to raise some funds through the issuance of bonds and the monies generated was to be loaned to municipalities at a low interest rate. The municipalities were to pay back the monies borrowed into the capitalization funds within 20 years. Unfortunately, low cost financing available through sources like the SRFs make it very difficult for the private sector to compete with public financing. Hence, the private sector has lost all incentive to pursue public-private partnerships that include private ownership.

Small districts were and still are at a disadvantage when competing with larger communities for loans, especially as they do not have exemplary credit ratings and may represent higher credit risks because of their small revenue base. A large percentage of SRFs are loaned to larger communities, primarily because they are viewed as a better credit risk. For instance, although 92 percent of the states in the survey considered health and environmental needs in offering loan assistance, most states ranked a community's readiness to start project construction and its ability to repay the loan as the second and third most important factors. Many small districts, unlike large ones, cannot afford to pay back the loan even at the low interest rate. EPA studies reveal that households in smaller communities face higher user charges as a percentage of household income than those in larger cities.


109. Supra note 53.

110. Id.

Accordingly, small communities cannot afford to raise the necessary user fees to repay a loan. For example, Montana officials reported that in a small town in the state, raw sewage was overflowing septic tanks into a creek, but the community could not afford to build a collection system and treatment lagoon to replace the septic tanks. While the town's residents could afford monthly user fees of only $12 per household, they (the district) could not afford the cost of an improved system which would have increased user charges to at least $42 a month per household. Similarly, the state of Colorado unsuccessfully tried to increase state taxes in order to finance a capital improvement bond for waste water treatment and water supply projects.\textsuperscript{112}

The restriction on the use of SRFs\textsuperscript{113} for purchasing land has adversely affected communities, particularly those small districts that are in need of sufficient land to replace septic tank systems with centralized treatment and collection facilities. Thus, loans are more likely to be used by larger cities with existing sewage treatment plants, especially if the loan rates are very low.

Furthermore, when the SRF was established, emphasis was on ensuring that the loan was paid back quickly so that the revolving fund money could be used for other purposes. Consequently, most small communities were left out because of their inability to repay loans. The aforementioned system of determining eligibility for loans gave a competitive advantage to larger communities whose immediate needs were not as great as those of small communities.\textsuperscript{114}

\begin{footnotes}
\item[112] EPA, Office of Management and Budget's Circular No. A102, Attachment N.
\item[113] The cost of purchasing easements and rights of way often necessary for sewage construction are not eligible for SRF assistance.
\item[114] The EPA should consider seeking legislative changes to Title VI of the Clean Water Act including creating a new fund exclusively for small community waste water treatment, drinking water and solid waste management as well as extending the SRF loan term beyond 20 years to help small communities repay their loans. EPA should encourage States to vary interest rates on the basis of economic need and to provide supplemental grants for hardship.
\end{footnotes}
Discouragement of Privatization:

Therefore, privatization is an attractive option in smaller financially depressed communities, particularly those starting from scratch and having a high bond rating. Privatization or having a utility operated and managed by a private enterprise is not a new concept. What is new is its application to the waste water treatment sphere. Privatization of waste water treatment would allow local governments to capitalize on advantages unique to the

115. Privatization and user fees are effective ways to raise capital for wastewater treatment facilities and to streamline operations. Jonathan Gifford, Infrastructure, Toward the 21st Century, 17 Wilson Quarterly 40 (Winter 1993). Pursuant to EPA’s 1988 needs survey, modernization and expansion of existing wastewater treatment plants and sewer systems are expected to cost as much as $110 billion over the next 20 years. Being concerned about the shortage of municipal funds including the poor state of publicly owned wastewater treatment plants, on April 30, 1992, Former President George Bush signed an executive order to promote private investment in state and local infrastructure. Alan B. Nicholas, Executive Order to Expedite Waste Water Privatization, Water Environment Federation, Water Environment Technology 35 (July 1992). EPA is expected to issue regulations to implement the order. There is ambiguity as to the effect, if any, the order would have on the future eligibility for state revolving fund assistance. Some experts confirm that privatization would enable cities to save substantial sums of money. For instance, municipalities that received a 75 percent federal grant on a $40 million plant in the late 1970s would save about $15 million. Statement by Steven Steckler, Senior Manager Price Waterhouse Transportation and Utilities Finance Group, in Water Environment and Technology 35 (July 1992).

116. Jonathan Gifford, Infrastructure, Toward the 21st Century, 17 Wilson Quarterly 42 (Winter 1993). Privatization has been applied in the development of other infrastructural services including water supply, railways, electricity and roads. The government has played an important supporting role in encouraging the private sector in this regard. For instance, in the 19th century, the construction of the railroad system was largely carried out by private industries. America’s $260 billion telecommunications infrastructure of copper and fiberoptic cables, switching systems and satellites has been built through private investment. In recent years, private investors have supplied (wired) 50 million American households with cable TV. Every year electric utilities invest between $10 and $15 billion in the installation of new plants and equipment.
private sector in owning, building and/or operating capital intensive facilities.

Privatization brings together public and private investors in a joint effort to provide efficient services. The private owner gains a business opportunity for a service contract and earns a favorable return on its investment but assumes most of the risks involved in the financing, construction and operation of the sewage treatment facility. Alternatively, the industry could share most of the risks and liabilities with the municipality. The district would be relieved of the problem of financing and overseeing operation and maintenance of a sewage facility. The city would, however, have a say in setting user charges and in solving customer problems.

Privatization would: reduce federal and state involvement in local government's responsibility to provide services; potentially lower sewer rates; provide continued assurance to the municipality of proper installation, efficient operation and maintenance of plants; offer more flexibility to communities on financing; provide a cost effective design, construction and/or operation alternatives; minimize lengthy construction delays; furnish significant economies of scale and produce innovative concepts.

Privatization has been successfully implemented in Massachusetts. For instance, to reduce a $5 million budget deficit, the city of Brockton, Massachusetts entered into a ten-year contract with Professional Services Group of Houston, Texas to operate and maintain its plant.\textsuperscript{117} The private company hired all the city's employees and saved the city $5 million over the life of the contract.

However, the impediments to the development of public/private partnerships include the nonexcludable nature (characteristics of a public good) of waste water treatment service; the concern about regulation and overregulation of price by public utility commissions; the aforementioned restriction of public ownership and disincentive for private participation introduced by the SRF; lack of state enabling legislation; wariness on the part of

\textsuperscript{117} Volume 6, No. 1 National Small Flows, West Virginia University (Jan. 1992).
the public to turn over traditionally local services to an outside company; limitation on the sale or incumbrance of existing waste water treatment plants that were financed by federal funds and the adverse economic impact of the 1986 Tax Reform Act.

Since some consumers can utilize and benefit from waste water treatment service without payment, there is an incentive not to pay for the service. The nonexcludable characteristic of waste water treatment service prevents private market forces from functioning, where a provider of service cannot ensure that only those that pay for the good can benefit from the service. There is an argument that such public goods should be provided by the government and for payment of such services through taxes. However, the private sector may be encouraged to provide such anti-pollution services especially if there is the existence of markets in clean water. Market failure results partly from the inability to define and enforce property rights. According to Coase’s theorem, externalities (such as pollution) do not give rise to misallocation of resources, provided there are no transaction costs and given property rights that are well defined and enforceable. For instance, if property rights are well defined and allocated, the holder of the right to clean water can grant to the polluter, the right to pollute in return for some financial compensation. By negotiating a mutually beneficial solution with the polluter, the producer and consumer of the externality internalize the externality and arrive at a pareto-relevant externality. The pareto-relevant externality occurs when the extent of activity may be modified in such a way that the externally-affected person can be made better off without the acting party being made worse off. Coase’s theorem has been rejected by most hard core environmentalists who strongly believe that the optimum level of pollution should be zero. Such environmentalists believe that granting the right to pollute to the polluter undermines the goal of ensuring that the waterways are not polluted.

The private entity is not classified as a public utility permitting it to enjoy the benefit of freedom from strict state control but unable to benefit from the tax allowances available to public entities. The EPA requires that the title of a federally
funded facility cannot be encumbered by a private party. If the facility needs to be expanded or upgraded, a private-public partnership could not be used without reimbursement of federal funds. Despite the dilapidated condition of sewage facilities in small communities, in particular, it was impossible for private investors to provide a competitive alternative for such communities.

The legislature was concerned that the investment tax credit and depreciation schedule that existed prior to 1986 resulted in investors making decisions that were not based on the viability of projects, but on the opportunity to obtain tax shelters and benefits. Therefore, the 1986 Tax Reform Act and the 1987 Deficit Reduction Act significantly reduced the use of accelerated depreciation, eliminated certain investment tax credits and limited the availability of tax exempt industrial development bonds. Additionally, the 1986 legislation decreased the availability of tax exempt financing of private sector investment.

Prior to 1986, private investors were able to utilize a ten percent investment tax credit (ITC) for financing waste water treatment plants. The Tax Acts of 1982, 1983 and 1984 provided benefits associated with privatization, including Accelerated Cost Recovery (ACRS) depreciation, an Investment Tax Credit (ITC), and the deductibility of interest on the debt associated with such projects. The credit enabled the private investor to offset tax liability dollar for dollar up to the first $25,000 and 85 percent in

118. But on April 30, 1992, then President George Bush signed an order relaxing recoupment practices and repealing the restrictive requirement that a municipality must repay the proportionate federal share of the plant's fair market value if it (the district) decided to sell its sewage treatment plant to a private investor. The order required State and Local Governments to repay only the depreciated value of the grant and to recover their original investment, including transaction costs. Alan B. Nicholas, supra note 115, at 35.

119. Alan B. Nicholas, supra note 115.

120. Prior to 1986, there was a 10 percent investment tax credit for infrastructure projects.
excess of $25,000.\textsuperscript{121} Tax credits that were not used in a given year could be carried against tax liability in preceding or subsequent years. In other words, ITCs would offset operating costs. Furthermore, prior to 1986, the accelerated cost recovery system (ACRS) depreciation provided a method whereby the capital investment in a facility could be recovered rapidly through accelerated depreciation. Most waste water treatment facilities have an economic useful life of 20 to 30 years. ACRS allowed for much of the facility to be depreciated over a five to eight year period. But the 1986 tax legislation and the 1987 Act made the allowances for depreciation less attractive to investors by extending the number of years over which plant and equipment can be depreciated. The elimination of ITCS and the significant limitation of the use of ACRS reduced the incentive for the private sector to invest in publicly owned waste water treatment facilities.

Initially, much of state and local governments’ investment in waste water treatment facilities was financed through the issuance of tax-exempt bonds. For such bonds, the governments paid below-market rates of interest to bondholders because the interest the bonds earned was tax exempt. But local governments were criticized for using proceeds from tax-exempt bonds for projects, such as shopping malls, that provided only indirect public benefits.\textsuperscript{122} Hence, the Tax Reform Act of 1986 placed restrictions on the issuance of tax-exempt bonds, thereby creating barriers to financing public infrastructure.\textsuperscript{123}

Additionally, the 1986 tax code introduced a two percent cost-of-issuance restriction on tax exempt private activity bonds

\textsuperscript{121} Supra note 13.

\textsuperscript{122} According to the data from the Federal Reserve Board of Governors, in 1985 about 33 percent of outstanding long term tax exempt bonds were used for private activities. Anthony Commission on Public Financing, Preserving the Federal-State-Local Partnership: The Role of Tax-Exempt Financing, 16 (Washington, D.C Oct. 1989).

\textsuperscript{123} Id.
that finance environmental facilities.\textsuperscript{124} There was an increase in
the cost of borrowing with private-activity bonds and limitations on
advanced refunding of such bonds.\textsuperscript{125} The Act restricted
arbitrage earnings (the interest earned by investing in tax exempt
bonds proceeds).\textsuperscript{126} The Act introduced a volume cap which
limited the amount of funding available in a given state each year
for environmental programs. The restrictions made tax exempt
bonds more expensive and less available for private/public
partnerships. To deal with the problem, environmental bonds
should be reclassified as governmental bonds (which cost less to
issue than private activity tax-exempt bonds), provided that their
proceeds are used primarily to finance public-purpose
environmental projects. Without encouraging the development of
public/private partnerships, communities, particularly small
districts, will continue to be financially and technically incapable
of complying with the CWA.

\textsuperscript{124} Pursuant to the 1986 code, a volume cap was placed by the State, thereby
limiting the amount of private activity bonds (tax exempt) that can be issued.
But prior to 1986, tax exempt financing was available to the private sector for
certain types of industrial development. Borrowing funds at lower tax exempt
rates assisted the private entity to charge fees for services that were comparable
to municipal rates. Vol. 6, No. 3, National Small Flows, West Virginia
University (July 1992).

\textsuperscript{125} Id.

\textsuperscript{126} Id. Government earnings on bond proceeds is restricted to 0.125 percent
above the initial yield on the bonds.
Judicial and Local Attempts to Bypass Restrictive State Laws on Financing Mechanisms.

Acknowledging that state restrictions on financing environmental projects can adversely affect the level of POTW compliance, some courts have recommended and rigorously sought ways of satisfying the financial needs of POTWs. For instance, federal courts have overridden state laws on financing mechanisms. In United States v. District of Colombia, the regional commission failed to abide by the order of the district court requiring the commission to purchase a sludge composting site and to allocate funds for the acquisition of such a site in its state budget. Consequently, the federal appeals court affirmed the order of the district court requiring the state agency to ignore state law on the procedures required for budget approval and to include certain funds in its budget. Rejecting a tenth amendment argument, the court of appeals held that the federal interest in water pollution control was vital and so well established that any tenth amendment argument limiting federal infringement on state sovereignty did not apply.

127. State law in St. Louis required voter approval before the district could raise money. Hence, in 1987, voters of St. Louis successfully turned down a referendum on a charter amendment to allow the sewer district to issue revenue bonds to pay for a $400 million capital improvement program. Such improvements were required to meet the sewer district’s agreement with State environmental officials. St. Louis Post Dispatch, Nov. 5, 1987, at 1A Col 3.

128. Courts have tried to override State restrictions on the issuance of bonds.

129. Courts have limited authority to order other branches of government to expend or raise funds for projects.


131. Id. The District court ordered that the funds be restored to the State budget.

132. Id. at 806-07. The federal court also enjoined county officials from complying with the State order that would have prohibited the purchase of the sludge composting site which the city had been ordered by the district court to
Similarly, the courts have made successful attempts to abrogate state restrictions that blocked the issuance of bonds to finance construction projects. For instance, in *People v. Sanitary District of Decatur*,\(^{133}\) the parties entered into a consent decree that authorized the sewage district to issue bonds to finance its $25 million share of a $107 million construction project. The decree permitted the parties to bypass voter approval for issuing the bonds, which would have been required under state law.\(^{134}\)

However, in *United States v. City of Detroit*,\(^{135}\) the district court unsuccessfully ordered the state to hold its federal grants for a financially incapacitated city.\(^{136}\) In reversing the order of the district court, the appeals court held that the order was unconstitutional\(^ {137}\) and would have had a negative impact on other similarly situated communities increasing reliance on federal funds and making compliance difficult.

In non-environmental cases (school segregation), courts have used direct methods of ordering the financing necessary to achieve compliance with an order. For instance, in *Missouri v.*

\(^{133}\) No. 82-3375 (C.D. Ill. Dec. 29, 1982).

\(^{134}\) Voter approval would have been politically hard to obtain.


\(^{136}\) The city had claimed that it was financially incapable of complying with the CWA regulations. The appeals court reversed the order of the district court on separation of powers grounds. The decision of the district court violated the doctrine of separation of powers primarily because under the federal grants program, Congress is authorized to allocate monies to the State and the latter is required to dispense the funds to communities in accordance with federal regulations. 33 U.S.C. § 1281(g) (1988).

\(^{137}\) *Id.* Under the federal program, Congress allocates funds to the State. 33 U.S.C. § 1281(g) (1988).
Jenkins, the United States Supreme Court, in a 5-4 vote, held that a federal court possesses the power to tax in certain circumstances. Although this case involved compliance with an order for school desegregation, the same principle could be applied to a court order that required POTWs to comply with CWA regulations.

Summary of Main Points:
Small communities, in particular, were financially hard hit by the deficiencies in the modes of financing and investing in public waste water treatment facilities. Given the nonexcludable nature of the provision of waste water treatment service, some financially capable households have had an incentive not to pay user fees, not to reveal willingness to pay and to attempt to free ride. In this respect, the private sector lacks the incentive to invest in the provision of such services.

The shortcomings in the mode of financing and investing in public facilities include problems in the implementation of Title II

138. This case involved the segregated Kansas City, Missouri school system. 495 U.S. 33 (1990).

139. Missouri v. Jenkins, 495 U.S. 33 (1990). In this case, the United States District Court was concerned that certain provisions of the Missouri State law limiting local property tax levies would ban the Kansas City school district from raising the monies necessary to comply with the order to maintain a school system free from racial discrimination. Therefore, the district court, in holding that the Kansas city school district had exhausted other possible sources of revenue, overruled the State restriction and ordered the school district to increase its property tax levy above the limit required by State law through the fiscal year 1991-1992. In upholding the decision of the district court, the Supreme Court noted that respect for the integrity of Local Governmental units should be of paramount consideration in evaluating the decision of the district court. Following the principle laid down in Griffin v. County School Board of Prince Edward County, the Supreme Court held that "a court order directing a local government body to levy its own taxes is plainly a judicial Act within the power of a federal court." Hence, a federal court may order a local government with taxing authority to levy taxes in excess of State statutory limits when there is a constitutional ground for not observing State limits. Griffin v. County School Board of Prince Edward County, 377 U.S 218, 233 (1964).
and Title IV of the CWA. The pitfalls of the Title II program include: persistent delays in administering federal grants; an unfair system of allocating federal grants which works to the detriment of small communities; local resistance to the program and the impoundment of authorized federal funds.

However, the allocation of sufficient federal grants did not always induce municipal compliance. The availability of a high proportion of federal grants in relation to local funding has even had certain adverse impacts on municipal compliance including the reduction and displacement of municipal spending and the disincentive for districts to acquire less complex and more cost effective technology and to efficiently operate and maintain such treatment plants.

Despite laws requiring that municipalities comply with secondary treatment regulations by 1988 whether or not they receive federal funding, in practice, the EPA has recognized that the grants program is highly capital intensive and has not instituted proceedings against many financially strapped violators.

Furthermore, the pitfalls in the Title IV program include: a biased system of allocating loans which favors larger communities whose needs are not as great as those of smaller communities; the lack of market approaches in the development of publicly owned waste water treatment facilities;\textsuperscript{140} the disincentive for private involvement in financing and investing in public waste water treatment facilities; and the restrictions on the use of SRFs for the purchase of land which limits the availability of land to replace septic tanks with centralized treatment facilities and collection systems.

\textsuperscript{140} See text accompanying notes 114-25, Discouragement of Privatization.
SECTION THREE

DEFICIENCIES IN THE ENFORCEMENT MODEL

NPDES Permit System and NMPS:

Whether or not they are financially distressed, municipalities are subject to Clean Water Act enforcement provisions.\textsuperscript{141} Congress delegated authority to the EPA to promulgate rules and regulations to effectively administer the Clean Water Act. The EPA sets minimum standards and oversees compliance with the CWA (CWA section 303, 402. 33 U.S.C. § 1313, 1342). The Act contains non-preemptive provisions. Accordingly, Congress emphasized that states can set more stringent standards than the EPA to protect their citizens' health and the environment.\textsuperscript{142}

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\textsuperscript{142} Section § 403(b) of the CWA, 33 U.S.C § 1342 (1988). The means of achieving water quality goals is by establishing and enforcing a system of technology-based effluent standards. The technology-based standards define the maximum quantities of pollutants each source would be allowed to discharge. Therefore, there is no need to investigate the assimilative capacity of water quality as was the case under the 1965 Water Quality Act. Section 101 of the CWA, 33 U.S.C. § 1251 (1988) sets goals which called for the achievement of fishable and swimmable waters throughout the nation by 1983. The Act required all municipal and industrial waste waters to be treated before being discharged into waterways. Id. The objectives of the CWA are to "restore and maintain the chemical, physical and biological integrity of the nation's waters." Id. To date, these goals have not been achieved.
When the districts fail to comply with the standards laid down in the NPDES permit\textsuperscript{143} limitations,\textsuperscript{144} either the EPA or

\textsuperscript{143} § 301(b)(1) of the CWA, 33 U.S.C. § 1311(b)(1). The National Pollutant Discharge Elimination System (NPDES) is one of the most important pieces of regulatory machinery under the Clean Water Act. The effluent limits are written into the NPDES permit. 33 USC § 1342 (1988). The permits limit the allowable discharges of individual polluters to the quantities that are consistent with relevant technology-based effluent limitation. Information provided to me by the EPA, Washington, D.C., April 1990. The permits must be obtained before the discharge of pollutants from any point source into waterways in the United States. Any material that is dumped into waterways constitutes a "pollutant." Any discharge point such as a pipe, ditch, container or vehicle is considered a point source. The CWA prohibited municipalities and industries from discharging pollutants into waterways without NPDES permits or contrary to the permit requirements provided that all treatment plants in existence on July 1, 1977, shall achieve effluent limitations based upon "secondary treatment" as defined by the Administrator of EPA. "Secondary treatment" refers to sewage treatment that is capable of removing up to 90 percent of all organic matter and solids in sewage prior to discharge. Office of Water and Programs Operations, EPA, Primer For Waste Water Treatment 5 (1980).

\textsuperscript{144} The EPA was empowered to establish effluent limitations as regulations within one year of the date of enactment. With regard to the EPA's task of translating effluent limitations into specific reductions and issuing permits to thousands of pollution dischargers, the agency reported that as of October 1982, it had issued slightly more than 68,000 permits consisting of more than 52,000 to industrial and other non municipal sources and 16,000 to municipal treatment plants. GAO, Waste Water Dischargers Are Not Complying With EPA Pollution Control Permits, 2 (1983). But the EPA was required to turn over the responsibility to individual States when the States met certain conditions. § 402(b) of the CWA, 33 U.S.C. § 1342(b) (1988), allows States to administer their own permits. Once the EPA approves a State permit program, the agency must suspend its own issuance of permits in that State while the State assumes the responsibility of administration and enforcement of permits against non compliant offenders. 33 U.S.C. § 1342(c) (1988). A State may issue a POTW its own permit imposing more rigorous requirements under State law. 33 U.S.C. § 1313(f) (1988). EPA must approve the State permit unless the administrator determines that the program fails to meet the applicable legal requirements. For instance, EPA has to be satisfied that the state program is adequately staffed and funded and designed to meet minimum EPA standards. By November 1988, 39 states and territories had taken over the responsibility for issuing permits and enforcing their terms. Where enforcement by the state is unsatisfactory, the EPA
the equivalent state agency, is authorized to issue an administrative order or refer the POTW to the Justice Department for judicial action. Additionally, the citizen suit provision of the Act empowers "any citizen to bring civil

may intervene by administering and enforcing NPDES permits in the State. United States v. Cargill, Inc., 508 F. Supp. 734, 739-40 (D. Del. 1981). In enforcing the requirements of NPDES permits and federal law, the EPA may not impose more stringent requirements than State law may impose.

145. 33 U.S.C. § 1319(a)(1) (1988). Where there is a violation of a NPDES permit limitation, the EPA will notify both the violator and the State of such a finding. Upon receiving such notice from the EPA, the State must institute enforcement proceedings. If State action is not commenced within 30 days of the EPA notice, the EPA may initiate appropriate enforcement action.

146. An administrative order may be applied in a number of ways. For instance, it may take the form of a notice of violation to a non-compliant POTW, a command for compliance, or an extension of the POTW's compliance schedule.


148. Pursuant to § 505 of the CWA,

any citizen may commence a civil action on his behalf-against any person [including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution] who is alleged to be in violation of (A) an effluent standard or limitation under this chapter or (B) an order issued by the Administrator of [EPA] or a State with respect to such a standard or limitation.

actions against anyone who is alleged to be in violation of . . . an effluent standard or limitation under [the Act]."149

Pursuant to the CWA, the self monitoring system requires companies and municipalities to file Discharge Monitoring Reports (DMRs) with regional EPA offices.150 The record keeping system documents each individual polluter's specific violations of regulatory standards and/or permits. Thus, the DMR system enables enforcement agencies and interested individuals to keep track of NPDES permit violations.

Being concerned about lack of progress151 of districts in complying with the CWA and in constructing sewage treatment facilities in the 1970's and 1980's, the EPA established more rigorous measures, particularly the National Municipal Policy Strategy (NMPS),152 which outlined appropriate enforcement responses where municipalities violated effluent limitations or NPDES permit requirements.153 Local governments were


149. 33 U.S.C. § 1365(a) (1988). This includes violation of discharge permits.


151. See introduction. The deadline for achieving secondary treatment has been extended twice. The initial deadline was extended from 1977 to 1983 and subsequently from 1983 to July 1, 1988.

152. This policy was signed in January 1984 and was a reaffirmation of the EPA's and the State's commitment in bringing all sewage treatment plants in the United States into compliance with the law and making sure that the plants remain in compliance.

153. Under the NMPS, enforcement officials may issue non-compliant municipalities any of the following: a permit extension in accordance with § 301(i)(1), U.S.C. § 1311(i)(1) (1988); an administrative order setting forth a
required to comply with the July 1, 1988 secondary treatment mandate of the 1981 CWA Amendments.\textsuperscript{154} EPA reports illustrate that following the implementation of the 1984 policy, 133 court cases were filed against non-compliant POTWs between that

\textsuperscript{154} Furthermore, the NMPS echoed the aforementioned decision of the United States courts that POTW compliance was not conditional on the receipt of federal funding. \textit{See} text accompanying notes 83-86. The only exceptions to the requirement that municipalities must meet compliance by July 1, 1988, were those cities that could prove that they were physically or financially hindered from completing sewage treatment construction by the July 1, 1988, deadline. But the NMPs made it clear that the cities that could prove financial and physical incapacity were to abide by court enforceable schedules to achieve compliance as quickly as possible. The EPA and the States were required to induce compliance by strengthening their enforcement efforts including taking additional measures against cities that refuse to cooperate to protect the health and environment of their citizens. EPA administrator, Mr. Lee Thomas, commented that his agency and the States have no intention of slowing their enforcement efforts. Office of Water, EPA, Municipal Compliance With Clean Water Act (July 27, 1988).
The 133 law suits filed consisted of 118 claims against NMP facilities requiring construction and 15 cases against NMP requiring improved operation and maintenance. Consequently, there was some progress in municipal compliance with the CWA between 1984 and 1988. The EPA claims that 87% of all publicly owned treatment works (serving 108 million people) in the United States met the July 1, 1988 deadline for pollution cleanup. The remaining 13% of POTWs were put on enforceable time schedules leading to compliance or were in some phase of a judicial process leading to the establishment of the timetables. There are currently 15,486 publicly owned treatment works in the United States consisting of 3,731 majors and 11,755 minors. By July 1988, the level of compliance among the total 3,731 majors rose from 60% (2,253 majors) in January 1984 (the date of implementation of the NMP) to 89% (3308) by July 1, 1988. Similarly, the level of compliance among the total 11,755 minors rose from 79% (9,257) in 1984 to 86% (10,083) in July 1, 1988. The remaining 11% (423) of all the majors were out of compliance in July 1988 while 14% (1,672) of all the minors did not achieve compliance by that same date. Of the 423 majors that did not meet the requirements, 235 were on.


156. Dave Ryan, EPA Environmental News, Office of Public Affairs, July 1988, at 1-2. 87 percent compliance has been achieved primarily through voluntary compliance and through Federal and State enforcement efforts.

157. "Majors" are defined generally as plants designed to serve 10,000 or more people and to process one million gallons or more of waste water a day.

158. "Minors" are all sewage treatment plants (other than the majors) which provide service to a population of under 10,000 or a flow of under one million gallons a day.
enforceable compliance schedules set forth in an NPDES permit, while 188 were not on any schedule. Furthermore, of the 1,672 minors that were unable to meet the requirements of the CWA by July 1, 1988, 1,231 were on enforceable schedules while 441 were not on any schedule.

_Civil Penalties:_

Observing the need for further improvement in the level of municipal compliance, Congress established more stringent civil penalties for violations of the CWA. Pursuant to the 1987 Water Quality Act, the maximum daily civil penalty imposed for municipal non-compliance was raised from $10,000 to $25,000 per day as long as the violation persists. In accordance with the Civil Penalty Policy, EPA is authorized to take a number of

159. The 235 consisted of 195 majors that were at some stage of the federal or state judicial process (judicial order) and 40 majors that were at some phase of the administrative process (administrative order).

160. The group of majors that was not on any schedule consisted of 150 majors on judicial referrals, 28 on planned referrals and 10 classified as receiving other referrals. The list contained majors that either had final schedules established but had unresolved legal issues or that had violated previous schedules and did not have final schedules in place.

161. Of the 1231 on enforceable schedules, 252 were at some stage of the judicial process while 979 were at some phase of the administrative process.

162. Of the 441 minors, 259 were on judicial referrals while 182 were awaiting action.


164. _Id._

165. EPA, Civil Penalty Policy For Major Source Violators of the Clean Air and Clean Water Act (Apr. 11, 1978). The policies are helpful in a number of ways including suppressing arbitrary assessments of penalty amounts, making it easier for agency officials to negotiate a penalty with a municipality and avoiding the political pressure to reduce the penalty.
factors into consideration before seeking the imposition of such a penalty. The elements considered include the sum appropriate to redress the harm/risk to public health or to the environment, the amount appropriate to remove the benefit derived or to be gained from delayed/avoided expenditure, the gravity of the violation, the history of recalcitrance, the violators ability to pay and the complication of procuring a penalty in litigation.

The court imposes civil penalties for a number of reasons, including the deterrence of future non-compliance and the penalization of past misconduct. The remedy has been effective, economical and fair. The penalties have produced some benefits including the threat of bad publicity, deterrence, fairness and the provision of legal advice. The penalties have had a deterrent effect on non-compliant POTWs, partly because of the bad publicity focussed on the violating POTWs. In particular, judicial remedies have attracted more bad publicity than administrative penalties. With the threat of such attention, communities are under immense pressure to comply. Hence, in negotiating a settlement (for administrative penalties) with a violating community, an agency may incur high costs, primarily

166. The economic benefits include delayed capital investment and saved expenses. The policy specifically stipulates that economic benefits cannot be recovered from delayed compliance or violations by municipalities. However, to be able to impose more stringent civil penalties on municipalities, EPA is currently investigating and calculating the profits, if any, made by municipalities from noncompliance.

167. Being aware that officials of the Department of Natural Resources and Justice in Wisconsin were willing and able to litigate, the communities made more serious efforts to avoid violations. Marcia R. Gelpe, Pollution Control Laws Against Public Facilities, 13 Harv. Envtl. Law Rev. 88 (1989). Stoddard v. Western Carolina Regional Sewer Auth., 784 F.2d 1200 (4th Cir. 1986). Following the Court's decree, the plant was in compliance and was meeting its pretreatment requirements.

168. Id. Both administrative and litigated.

because some communities may vigorously attempt to avoid paying such penalties. The costs incurred in administrative negotiations are, however, not as large as those incurred in litigation.

Being less time consuming and less costly, administrative penalties are usually more economical for agencies to impose than judicial remedies. Besides, some state judges are sometimes incapable of hearing water law cases involving highly complex and technical issues. But with litigation, communities are assured of legal counselling on exactly what the law requires.

Administrative penalties can satisfy the standard of fairness if similarly situated communities are required to pay the same amount (according to their ability to pay). Litigation alone, without the imposition of penalties, does not satisfy the fairness goal but may sometimes be effective. The imposition

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170. Litigation is expensive and time consuming especially as the agency has to seek consent from the office of the Attorney General. When the Deputy Director, Water Division of EPA refers a case for litigation, it takes 17 reviews and authorizations within EPA and the United States Department of Justice before the case is filed in court. Hence, EPA prefers to issue a notice of violation, an administrative order demanding compliance, or an extended schedule for compliance. However, with administrative enforcement, some POTWs delay compliance and escape judicial sanctions. Between 1977 and 1980, EPA issued 344 notices of violation. These notices constituted 21 percent of all municipal enforcement actions. During the same period, the EPA issued 1261 administrative orders which constituted 75 percent of all municipal enforcement action.


172. The imposition of the penalty can remove the competitive advantage a community can derive from noncompliance. Henry F. Habicht, Justice Department Has "Unfinished Business" in Superfund Enforcement Action, Habicht Says, 18 Env't Rep. (BNA) 718 (June 26, 1987).

173. In some cases litigation, without the imposition of civil penalties has served the purpose of gaining the local community's attention and putting pressure on the public. For instance, in the United States v. City of Detroit, Judge Feikens had such a strong, controlling personality, influence and presence in the courtroom that most defendants paid tremendous attention to what he required.
of penalties in a judicial action ensures that the community is treated fairly vis-a-vis other complying and non-complying communities. Penalties would not only make members of the district aware of the violations but would also ensure that they (the community) do not have an unfair advantage over other similarly situated communities. For instance, a penalty can recoup from the community costs it saved and benefits it gained from violation. Benefits can be gained, if the local government uses the funds allocated for the installation of waste water treatment facilities for profit making public services which tend to attract more industry.  

Observing that lack of judicial enforcement can result in an increase in the level of municipal non-compliance, some states, particularly Wisconsin, have been willing and able to demand civil penalties in litigation, (as opposed to administrative proceedings) especially as Wisconsin has no formal administrative enforcement machinery. Wisconsin is the only state in the United States that seeks to impose civil penalties against POTWs in every case litigated.


174. An example of such a use is the building of a shopping center in a local community.


177. Id. The penalties for consent orders and judicial decrees amount to about $60,000, with an average of about $9,300.
Reluctance, Failure or Inability to Impose; Biased Enforcement Measures:

Generally, public and private enforcement measures against districts continue to be inadequate. Judges rarely impose civil penalties on non-complying POTWs.178 Besides, public enforcement agencies and private citizens groups have directed most enforcement efforts and criticisms toward industrial point sources which account for less

178. The vast majority of private enforcement actions have been instituted by environmental advocacy groups such as the Natural Resources Defense Council (NRDC). Feller, Private Enforcement of Federal Anti-Pollution Laws Through Citizen Suits: A Model, 60 Den. L.L. J. 553 (1983).

179. The court imposed $1000 on the POTW in the case of Stoddard v. Western Regional Sewer Auth., 784 F.2d 1200 (4th Cir. 1986). The court gave a number of reasons for imposing a less stringent penalty including that the plant had expeditiously addressed the problems and had made progress toward a resolution, and that Western Carolina needed to undertake a huge capital improvement program and a large fine would have constrained the ability of the city to comply with federal and State regulations for construction of other or improved treatment facilities. United States v. Puerto Rico Aqueduct and Sewer Auth., 25 Env't Rep. Cas. (BNA) 1921 (D.P.R. May 4, 1987). A civil penalty of $60,000 was imposed on the noncomplying POTW in the case of State v. City of San Francisco, 13 Env't Rep. Cas. (BNA) 1440 (Cal.Ct. of App. June 28, 1979). The court imposed $30,100 on the POTW in the case of Galveston v. State, 518 S.W 2d 413 (Tex. Civ. App. 1975).

180. Instantaneous POTW compliance is often neither required nor received by the court.


182. The right is given to all citizens. But those that are likely to have an interest in enforcing the requirements of pollution control laws against POTWs include public interest advocacy groups, downstream residents and stream users.
than one-tenth of all water pollution.\textsuperscript{183} For instance, between 1978 and 1984, six environmental advocacy groups\textsuperscript{184} filed 162 cases against industries but failed to file a case against a municipality during the same period.\textsuperscript{185} Additionally, between 1984 and April 1988, private groups filed more than six times as many notices of intent to sue against industries as they (private groups) did against government agencies.\textsuperscript{186} With the threat of negative publicity, profit oriented industries are more likely than municipalities to be pressured to avoid a violation,\textsuperscript{187} especially


\textsuperscript{184} Michael S. Greve, \textit{The Private Enforcement of Environmental Law}, 65 Tulane L. Rev. 339 (1990). The Atlantic States Legal Foundation; the Connecticut Fund for Environment; Friends of the Earth; Sierra Club Legal Defense Fund; the Student Public Interest Group of New Jersey (SPIRG); the Natural Resources Defense Council (NRDC). The NRDC established a self-sustaining enforcement program using attorneys' fees obtained from one case to fund future cases.


\textsuperscript{186} \textit{Id.}

\textsuperscript{187} Industries are more likely, able and willing to bring about immediate positive change toward compliance than municipalities.
as they (industries) rely heavily on ensuring the satisfaction of their consumers.188

Since municipalities have a higher rate of non-compliance than industrial dischargers, the enforcement preference for industrial dischargers does not stem solely from the urge to deter and to punish polluters. In filing more cases against industries than against municipalities, enforcers are primarily influenced by economic considerations.189 It is realistic to expect even the most altruistic public attorney to pursue cases for the public benefit with minimal costs and maximum rewards.190 The tendency of government and private enforcers to target deep pockets is not unique to enforcement actions brought under the CWA. Government agencies have targeted primarily big pockets (including those corporations that are potentially responsible parties) for clean up of abandoned hazardous waste sites. Pursuant to the Comprehensive Environmental Response, Liability and Compensation Act of 1980 (Superfund),191 EPA was accorded the authority to identify parties responsible for currently inactive or abandoned waste sites and force private clean up actions. Alternatively, EPA was required to clean up the sites itself and sue the responsible parties later. Consequently, with the enormous

188. Profit oriented industries have a broad consumer base at the local, national and international level. Hence, to protect the good image of the industry, such firms are pressured to comply especially as they would not want to arouse any negative publicity that would jeopardize business dealings with their consumers. On the other hand, municipalities owe allegiance to their voters, particularly those within their local districts.


190. Unlike districts, private companies often have access to substantial funds and possess high quality decision making capabilities. Additionally, industries are more liable to undertake less complicated settlement negotiations. Thus, an enforcer is likely to obtain higher settlements from an industry than from a financially incapacitated, bureaucratic municipality.

economic incentive, government and private enforcers have invested tremendous time, effort and human resources, in an attempt to identify, track down, and sue responsible parties, particularly large wealthy corporations. A senior attorney working with the State EPA equivalent in San Francisco, California, confirmed that about three-quarters of the legal practice of the agency is devoted to Superfund cases.

Further, when courts impose penalties on municipal entities, fines are often less harsh than those levied on industrial dischargers.¹⁹²

There are several reasons for disparity between the enforcement measures brought against cities and those filed against industries. These include political¹⁹³ and practical considerations,


¹⁹³. The reluctance of federal agencies to sue cities stems partly from the reality that by suing districts, the Federal Government is indirectly suing itself especially as the municipalities are a lower branch of Government. Local political pressures have influenced some judges in their decisions not to impose stringent civil penalties. Marcia R. Gelpe, *Pollution Control Laws Against Public Facilities*, 13 Harv. Envtl. Law Rev. 88 (1989). Some factors including the power struggle, unaccountability, bad communication and lack of coordination between utility agencies and regulatory institutions have resulted partly in a number of problems. The difficulties include conflict, inconsistencies and delays in the advice conveyed to POTWs; failure of municipalities to apply for extensions of compliance deadlines as well as delays by enforcement agencies in initiating enforcement action against non compliant POTWs. While arguing over responsibility and authority, violations continue unabated. For instance, in Detroit, a division among the city council, the city sewage department, the mayor, and others contributed to violations. *United States v. City of Detroit*, 476 F. Supp. 512 (E.D. Mich. 1979). Disagreements between a State sewage authority and its constituent counties led to prolonged litigation and long term violations in Maryland. *United States v. District of Colombia*, 654 F.2d 802 (D.C. Cir. 1981). The case of *Town of Hallie v. City of Eau Claire*, 471 U.S. 34 (1985), illustrated that cities and towns have struggled over regionalization. For instance, while permitting individual landowners to connect to its (city's) facility if the area was annexed to the district, the city refused to allow towns to connect to its treatment plant. In the case of *Commonwealth of Pennsylvania Envtl. Strike Force v. City of Jeannette*, 9 Pa.Cmwlth. 306, 305 A.2d 774 (1973),
as well as\textsuperscript{194} the misconception\textsuperscript{195} that municipalities, unlike industries, do not profit from non-compliance.\textsuperscript{196} In addition, there is a perceived variation between industries and municipalities regarding the ability to efficiently operate and maintain wastewater treatment facilities.\textsuperscript{197} Finally, the profits earned by municipal entities are difficult to calculate. This raises a concern that communities failing to comply as a result of financial difficulties will suffer more hardship. Because POTWs are perceived as non-

the State attempted to obtain a court order that the city must join the regional sewer authority.

194. \textit{Supra} note 178.

195. Because of the general assumption that districts do not profit from noncompliance, fines levied against POTWs do not reflect economic benefits gained. Instead, the penalties are based on the city’s ability to pay. Officials consider a number of factors including the size and resources of the municipality. I am more inclined to believe that there are instances when municipalities can benefit from violating the CWA provisions. For instance, profits would be gained if the local governments used the funds allocated for the installation of wastewater facilities for the promotion of other profit making services such as the building of a shopping center. Besides, to gain economic benefits, municipalities could attract industries to invest in their district and to connect to their POTW facilities (through the pretreatment program) by failing to impose stringent enforcement measures against industrial violators of the pretreatment program. There is, therefore, a pressing need for environmental enforcement agencies to conduct intensive economic surveys and studies of municipalities, particularly those that have received financial assistance but have still failed to comply with the provisions of the CWA. The economic study of such noncomplying districts should focus on a number of issues including the following: The level of priority accorded wastewater treatment projects and profits derived from diverting allocated funds to other more lucrative projects.

196. One justification for imposing tougher enforcement on industries, rather than on municipalities, is that the former profit from polluting behavior.

197. Industries are technically and financially capable of efficiently operating and maintaining facilities. Fund shortages impair a district’s ability to attract the qualified staff necessary to do the same.
profit public facilities\textsuperscript{198} providing public services, there is the view that imposing fines on POTWs runs counter to EPA's policy of imposing penalties to make pollution unprofitable. Fines have proven ineffective in compelling POTW compliance, especially when the reason for non-compliance was lack of funds. Judges are concerned that civil penalties come from a restricted quantity of public funds which could otherwise be used by municipalities for compliance.\textsuperscript{199} Hence, imposing such penalties could detract from compliance.\textsuperscript{200} Additionally, because all districts do not receive federal funds, judges are concerned with the fairness of punishing unfunded communities for non-compliance.\textsuperscript{201} Some courts advocate minimal fines on POTWs because they believe that taxpayers are likely to bear the burden rather than responsible public officials.\textsuperscript{202}

\begin{itemize}
  \item 198. POTW are presumed to be non-profit, particularly for tax purposes.
  \item 199. *United States v. City of Providence*, 492 F. Supp. 602, 611 (D.R.I. 1980). The judge in this case refused to assess immediate fines for civil contempt because such a remedy would reduce the resources available for compliance and penalize taxpayers who are not responsible, supra note 178. To avoid financial hardship on the POTWs, the judge imposed less stringent penalties in the case of *Stoddard v. Western Carolina Regional Sewer Auth.*, 784 F.2d 1200 (4th Cir. 1986).
  \item 200. *Id.* Fines jeopardize attempts to achieve municipal compliance by diverting limited funds from local waste water treatment programs.
  \item 201. Environment Reporter Current Developments, "Sewage Treatment: Officials say EPA will seek penalties from MDC for past pollution of Boston Harbor," 17 E.R. 2127 (Apr. 17, 1987). James Hoyte, Massachusetts Secretary of Environmental Affairs, Massachusetts Water Resources Authority, expressed the view that requiring authorities to spend money to correct violations makes more sense and is more practical than the imposition of civil penalties.
\end{itemize}
Public v. Private Enforcement Measures; The Ineffective Discharge Monitoring System:

Since, unlike public agencies, private citizens are not constrained by political and budgetary considerations, private enforcers, particularly six environmental groups have filed more cases than those brought by public enforcement agencies. Private actions instituted through nationally and regionally organized environmental organizations continue to account for roughly two-thirds of all enforcement actions under the CWA. More than half of all notices of intent to sue were instituted by only five environmental organizations. The increase in cases and notices filed by citizen groups was enhanced by the aforementioned regulatory system set up under the CWA by 1982. Access to information is a key element in environmental citizen participation. The DMR system

203. Landes and Posner believe that the prevention of over enforcement is one end result of budget constraints. Landes and Posner, Private Enforcement of Law, 4 J. Legal Studies 1, 36-37 (1975).

204. For the six environmental advocacy groups, supra note 183.

205. Supra note 183.

206. Supra note 182, 183. Michael S. Greve, The Private Enforcement of Environmental Law, 65 Tulane L. Rev. 339, 13 (1990). The Sierra Club Legal Defense Fund, The Atlantic States Legal Defense Foundation, the Natural Resources Defense Council (NRDC), Friends of the Earth (FOE), Public Interest Research Group (PIRG). Notices of intent to sue filed by environmental groups have not always led to litigation but have resulted in either settlements or consent decrees.

207. Supra text accompanying notes 141-50.

208. Supra note 150. In order to determine the degree of effective compliance, it is necessary to scrutinize the discharges of polluters and to compare them with the terms of their permits and effluent limitations.
facilitated and simplified the process of detecting and identifying violations.\textsuperscript{209}

But some of the reports presented may be inaccurate (the extent of non-compliance may be greater than indicated), especially since some dischargers may have the incentive to understate actual discharges. Another problem is that violators sometimes evade reporting requirements altogether. Because of a shortage of staff, enforcement agencies are financially and technically incapable of conducting on-site visits to inspect the treatment plants and to determine the accuracy of the reports. To deal effectively with the monitoring problem, Congress should enact a statute requiring municipalities and industries to bear the inspection costs. The statute should provide some economic incentives for violators to submit reports. Some incentive mechanisms that could be introduced include reducing the penalties of those violators that submit reports voluntarily and religiously, and imposing more stringent penalties on those that try to escape submitting reports.

Besides the DMR system, the toxic release inventory, (TRI) mandated under the Emergency Planning and Community Right-to Know Act,\textsuperscript{210} requires industries to submit reports on the quantity of 320 specific wastes they release. As of 1990, about 22,569 plants had submitted reports (United States Environmental Protection Agency, Toxics in the Community 1, 1991). EPA provides the TRI information from their database, thereby giving the community organizations information on which to base their legal actions.

The constitutional system of separated and limited power is partly responsible for the active citizen participation in the enforcement against violators of environmental statutes. The Tenth Amendment states that "[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people." Limiting

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\textsuperscript{209} The NPDES permit violations are easily detected by any interested person including the layman. The Discharge Monitoring Reports filed with the regional EPA offices are made readily available to any interested person upon request.

\textsuperscript{210} Section 313 of the EPCRA, 42 U.S.C. § 11023 (1988).
governmental powers (federal, state and local) enhances freedom of private decision making.

Legislative and Judicial Response; Weak System of Checks and Balances; Ineffective Means of Safeguarding Against Abuse; Ineffectual Means of Coordination:

While the legislature has successfully attempted to sway the frequency and the nature of public enforcement by controlling resources and setting penalties, Congress has had difficulty balancing private and public enforcement through economic incentives and fines.\textsuperscript{211} The following example provides an illustration. To ensure extensive enforcement by public agencies, the legislature could set penalties below the social cost of any given offense and increase the quantity of public resources available for enforcement. Relatively low penalties compel extensive government enforcement due to a lack of monetary deterrence.\textsuperscript{212} Accordingly, if the legislature increases the penalty imposed, a public enforcer would reduce his investment in tracking down and prosecuting offenders primarily because of the realistic presumption that increased deterrence (resulting from higher fines) would reduce the frequency of the offense.\textsuperscript{213} In contrast, the

\begin{footnotesize}
\begin{enumerate}
\item[211.] Unlike government enforcement agencies, private agencies do not rely on Congress for resources. In an effort to maintain extensive and abatement-oriented private enforcement, the courts adopted the view that the citizen suit provisions of the Clean Water Act do not confer jurisdiction over citizen suits for "past violations that have ceased" but accords jurisdiction if the plaintiffs make a good faith allegation of "continuous or intermittent violation." Scott, B. Garrison, \textit{Subject Matter Jurisdiction, Standing, and Citizen Suits: The Effect of Gwaltney of Smithfield v. Chesapeake Bay Foundation, Inc.}, 48 MD. L. Rev. 403, 420 (1989). \textit{Gwaltney of Smithfield v. Chesapeake Bay Foundation}, 484 U.S. 49 (1987).
\item[212.] For instance, parking violations, which attract low penalties, are policed by meter maids.
\item[213.] Therefore, to conserve the public resources used for the detection and apprehension of culprits, the legislature has often set penalties at a level above the social cost of any given offense.
\end{enumerate}
\end{footnotesize}
prospect of monetary losses would prompt private enforcers to increase enforcement efforts.

The traditional enforcement model gave government institutions the primary responsibility of enforcing environmental laws for the public good and apparently assumed that private enforcement would be ineffective. However, in the 1970s, environmentalists, in particular, criticized the executive branch for the low priority given to environmental concerns. Due in part to pressure from environmentalists and to the problem of under enforcement by public agencies, Congress introduced the private citizen suit provision as a supplement to public enforcement. To propel federal and state agencies to higher levels of environmental performance, Congress (predominantly Democrats) took actions which included restricting executive branch discretion, transferring key management decisions from state to federal government, expanding citizen and press information rights and encouraging active public participation in order to monitor agency implementation of the Clean Water Act.

The Supreme Court’s 1971 decision in *Citizens to Preserve Overton Park v. Volpe* extended the scope of reviewability of agency acts to include informal actions. By compelling the defendant agency to set up a record permitting review, the Court enhanced the participation of citizen groups in the review process.

The Supreme Court (comprising the conservative majority) has sometimes acted contrary to legislative intent and has altered the administration of environmental laws by according agencies a broader discretion in implementing such laws. In *Chevron U.S.A.*, 214. Citizen suits are meant to supplement EPA enforcement. *Gwaltney of Smithfield v. Chesapeake Bay Foundation*, 484 U.S. 49 (1987). *Supra* note 148 and 209. Citizen suits were introduced as a type of extended private nuisance action.

Inc. v. Natural Resources Defense Council, Inc.,\textsuperscript{216} the Supreme Court held that when the statute is silent or ambiguous with respect to a specific issue, the courts should defer to the agency's interpretation of the statute. The Court unanimously upheld the EPA's administration of the pollution trading permit program within a regional bubble because the Clean Air Act was silent on the subject. Though this case involved the Clean Air Act, it is still relevant in illustrating the broad discretion that can, sometimes, be accorded to environmental agencies by some courts. Some agencies have relied on the Chevron Case to undermine legislative intent to circumscribe agency discretion and coerce executive action in accordance with the demands of the legislature.

To limit the scope of the executive branch, Congress allowed citizens to play a significant role as "private attorney generals" in assisting the legislative branch in the process of agency oversight. The courts have generally favored citizen participation and private suits, but in Lugan v. National Wildlife Federation, the Supreme Court limited citizen participation in agency proceedings.\textsuperscript{217}

Citizen suits have been effective, to a certain extent, in goading administrative agencies into efficiently performing their enforcement functions to a degree. However, without effective means to safeguard against the abuse of the private citizen suit provision, there exists a danger of private over-enforcement which includes the filing of frivolous suits.\textsuperscript{218} The attempts of Congress

\textsuperscript{216} 467 U.S. 837 (1984)

\textsuperscript{217} 497 U.S. 871 (1990)).

\textsuperscript{218} Supra note 148. The CWA provides that no action may be instituted by private citizens if the Administrator or State has commenced or is diligently prosecuting a civil or criminal action in court of the United States. Additionally, no private action may be instituted unless the government is given 60 days advance notice. Section 505(d) of the CWA, 33 U.S.C. § 1365(b) (1988). To prevent private over enforcement and to ensure that private enforcers are altruists and not bounty hunters, legislators prohibited the derivation of rewards under the CWA and required that citizens who protect the public should only be reimbursed attorneys fees and litigation costs. Altruism is intended to function
to address this issue have been unsuccessful. This is partially due to judicial decisions which afford private enforcers the opportunity to solicit transfer payments in the form of above-cost attorneys' fees and credit projects from alleged polluters.\textsuperscript{219} These decisions undermine the legislative intent to prevent overenforcement and to ensure that citizen plaintiffs have mainly altruistic motives in filing suits. Instead of paying the United States Treasury civil fines as required by federal law,\textsuperscript{220} the monies are converted into tax deductible credit programs. Huge

\begin{itemize}

\item 219. Instead of paying civil penalties, the court has sometimes imposed a requirement that noncomplying treatment plants pay into an environmental project fund. Environmental advocacy groups can solicit transfer payments from alleged polluters. Rewards are gained through the payment of attorneys fees and through the conversion of settlements to credit projects. Payments for such projects after a private settlement often go to environmental groups other than the organization bringing the enforcement action. The funds are administered by the plaintiff or third party and are for environmental improvements. EPFs have been granted in a number of consent orders. For instance in the case of State v. Storm Lake, $3,000 was to be used for a conservation or fisheries project receiving waters. \textit{State v. Storm Lake}, No. 21 474 (Iowa Vista County Ct. March 22, 1982). $100,000 was allocated for an environmentally beneficial project in the case of \textit{United States v. Niagara Falls}, No. 81-363c (W.D.N.Y. Jan. 19, 1984). $750,000 was set aside for environmentally beneficial programs that furthered the objectives of the CWA in the case of \textit{United States v. Board of Comm'rs of Hamilton County}, No. C-1-85-0693 (S.D. Ohio Aug. 16, 1986). The legislature has not yet enacted any statutes concerning credit projects.

\item 220. \textit{Supra} note 218.
\end{itemize}
settlements\textsuperscript{221} accrue to private enforcers, particularly environmental advocacy groups, thereby providing an economic incentive\textsuperscript{222} to overzealously file such suits. This arrangement is popular because alleged violators find it economically attractive to settle out of court with private environmental advocacy groups rather than deal with public enforcement agencies and/or pay litigated remedies.\textsuperscript{223} Concern with this practice prompted public officials, including the Department of Justice (DOJ), to argue both publicly and before hearings that the frequent substitution of credit

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\textsuperscript{221} Settlements contain four elements including a fine payable to the general treasury, payment of attorneys’ fees and litigation costs to the plaintiffs or their advocate; provisions for achieving compliance with NPDES permit limits which often specify the installation of additional pollution control technology and periodic submission of DMRs to the citizen plaintiff; mitigation or credit programs to be instituted or paid for by the alleged violator in addition to fines or in lieu of a portion of fines.
\end{quote}

\begin{quote}
\textsuperscript{222} \textit{Supra} note 219. The court held that the market rate at which public advocacy groups are to be paid is the average rate charged for similar work conducted by profit oriented attorneys in the community. \textit{Environmental Defense Fund v. EPA}, 672 F.2d 42, 58 (D.C. Cir. 1982). A survey of 29 cases in the period between 1983 and May 1985, revealed that more than 65 percent of the settlements, having a combined settlement amount of slightly less than $1,000,000 went to environmental organizations. The remaining was split between the treasury (about 22 percent) and the State and Local agencies (20 percent). Barry Boyer and Errol Meidinger, \textit{Privatizing Regulatory Enforcement}, 34 Buffalo L. Rev. 833 (1985). NRDC set up the Open Space Institute as a repository for case settlements in CWA suits.
\end{quote}

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\textsuperscript{223} \textit{Id.} Litigation is very expensive and time consuming for the alleged violator and the enforcer. Besides, paying monies into the treasury constitutes a 100 percent tax on the private enforcers recovery. In contrast to penalties paid into the treasury, payments for credit projects are often tax deductible. Alleged violators can negotiate a heavy discount to the fines paid into credit projects. Joseph F. Guida, \textit{Dramatic Growth in Citizen Suits Under the Federal Clean Water Act}, Nat’l. L. J. 24 (Dec 3, 1984).
\end{quote}
programs created a potential for abuse of the citizen suit provision. In response, Congress authorized the DOJ to review and monitor private settlements within 45 days and to ensure that a portion of the assessed penalties go to the federal treasury. However, the 45 day period is hardly enough time for the public enforcement agency to scrutinize settlements especially since the agency is often swamped with more work than it can handle.

A further problem is that the executive branch does not have full discretion to terminate private enforcement and cannot unilaterally withhold, void or adjust private settlements due to the power of the judiciary. To thwart the continuation of a private suit, the only option open to the government enforcement agency is to initiate its own proceedings. Hence, there is the danger that public enforcement agencies may be pushed into filing enforcement actions that are frivolous and counterproductive. Despite the objections of the DOJ, courts have sometimes entered a settlement providing for payments to organizations other than the United States Treasury. In Natural Resources Defense Council v.

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225. The proposed private settlements must be submitted to the DOJ, which may provide comments within forty five days. The new provision of the CWA is called the "protection of interests of the United States." Section 505 of the CWA was amended by adding a new paragraph (c)(3), which provides that "no consent judgement shall be entered in an action in which the Unites States is not a party prior to 45 days following the receipt of a copy of the proposed consent judgement by the Attorney General and the Administrator." 33 U.S.C. § 1365(c)(3) (1988).

226. There may also be the danger of a civil equivalent of double jeopardy. Though some environmental law experts believe that the possibility of double jeopardy is fairly remote. Miller, Private Enforcement of Federal Pollution Control Laws, Part III, 14 Envtl. L. Rep. 10,427 (1984).
Interstate Paper Corp,\textsuperscript{227} the court held, \textit{inter alia}, that even if the proposed payment does not conform to the requirements of EPA policy guidelines, it can still be properly agreed upon by the parties to the action.\textsuperscript{228}

\textit{Credit Projects and Potential for Abuse; Pros and Cons; Credit Projects v. Civil Penalties:}

Unlike penalties paid into the United States Treasury, credit projects are used directly for eliminating the violation and for improving the environment. Payments into project funds may be easier and more economical to negotiate since defendants are likely to cooperate. The alleged violator can avoid the negative publicity that stems from a civil penalty and can earn the good reputation of doing something positive to improve the environment. However, credit projects should not completely displace civil penalties.\textsuperscript{229} Without the threat of bad publicity, the non-compliant POTW does not face as much pressure to comply with regulations as would a facility that was required to pay a civil penalty. The indirect benefits that private enforcers derive from credit programs may, in part, result in the filing of suits. Therefore, Congress should enact legislation requiring private enforcers to pay fines incurred into environmental funds and to set up credit projects. The monies should be used solely for remediation of environmental harm.\textsuperscript{230} To deal with the possibility of private enforcers abusing the right to implement credit programs, the projects should not be tax deductible.


\textsuperscript{228} Regardless of the disapproval of the DOJ, courts have signed consent decrees.

\textsuperscript{229} The nature of the remedy awarded should be determined on a case by case basis.

\textsuperscript{230} Supra note 223. To date, only judicial decisions support the implementation of credit projects. The legislature has not yet enacted any laws with regard to credit projects.
Other Remedies; Pros and Cons; Failure, Reluctance to Impose; Disparity Between Enforcement Measures:

The legislature amended the CWA to impose criminal penalties of up to two years in prison and fines of up to $50,000 per day for those who negligently violate the Act. Criminal sanctions have been used against public officials in very few cases. A penalty under the Act is a form of strict liability and neither fault nor intent are relevant except in connection with the amount of the penalty.

Despite the legal complexity of prosecuting officers of private corporations, criminal sanctions have been regularly imposed against such officers to deter non-compliance with

231. Remedies include criminal sanctions, sewer moratorium, and receivership.


233. For example, United States v. Brittain, 931 F.2d 1413 (10th Cir. 1991); United States v. Hoflin, No. CR85-82T (W.D. Wash. Apr. 3, 1986); United States v. McIntyre, Env't Rep. (BNA) 1299 (Sept. 4, 1987). In United States v. Brittain, the court upheld the conviction of the sewage treatment facility supervisor for the City of Enid, Oklahoma for negligently and wilfully causing the discharge of untreated wastes into navigable waters. The officer had general and supervisory authority over the operation of the district's wastewater treatment facility. Evidence demonstrated that the supervisor had been informed that pollutants were being discharged. The supervisor had observed the discharge violations on two occasions, but instructed his subordinate not to report the violations to EPA, as the city's permit required.

234. United States v. Texas Pipeline Co., 611 F.2d 345 (10th Cir. 1979).

environmental statutes.\textsuperscript{236} To hold a corporate officer liable for illegal hazardous waste related activities, the court considers a number of issues, including the personal participation of the officer in the illegal act and whether or not the corporate veil should be pierced. There is some controversy as to whether or not it is necessary to pierce the corporate veil to hold liable an officer who has participated in illegal hazardous waste related activities. The law regards the corporation as a legal entity "separate and apart" from its shareholders, officers and directors. Under the traditional corporate law of limited liability, officers are immune from liability for the unlawful actions of the corporation, unless the officer personally participated in the illegal acts or unless other grounds existed for disregarding the corporation as a separate legal entity (the equitable principle of piercing the veil).\textsuperscript{237} Some legal scholars have asserted that it is not necessary to pierce the veil to hold an officer, who participated in an unlawful activity, liable.\textsuperscript{238} Piercing the veil is a means used by the courts, primarily to hold liable the owners or shareholders of a corporation. Shareholders of corporations are immune from liability for actions of the company unless the circumstances warrant the piercing of the corporate veil. Liability of shareholders is limited to their contribution of capital. The court considers a number of factors in determining whether the corporate veil should be lifted to hold the shareholder liable. The elements considered include whether the corporation was formed or used for an illegal, fraudulent or unjust purpose. In the case of

\textsuperscript{236} For example, the Los Angeles Toxic Waste Strike Force convicted the president of Culligan Water Company's Hollywood plant for the corporation's discharge of large amounts of hexavalent chromium into municipal sewers. The officer was sentenced to three months in custody and the company was fined $10,000. Steven Zipperman, \textit{The Park Doctrine - Application of Strict Criminal Liability To Corporate Individuals For Violation Of Environmental Crimes}, 10 UCLA J. Env'tl. L. and Pol'y 123 (1991). DiMento, \textit{Environmental Law and American Business: Dilemmas of Compliance} 43 (1986).


Ramsey v. Adams, the court listed a number of factors that would support the piercing of the corporate veil. The factors include undercapitalization of a one-man corporation, failure to observe corporate formalities, use of the corporation as a facade for operations of the dominant stockholder or stockholders and the use of the corporate entity in promoting injustice and fraud.

The possibility of criminal prosecution and the threat of negative publicity put pressure on private companies to comply. Unlike corporate officers, public officials are normally immune from criminal actions brought by water quality enforcement agencies because political considerations militate against jailing public employees. Moreover, if sanctions were regularly imposed on municipalities, competent persons might be dissuaded from entering public service. While the public sector cannot afford to offset the risk of criminal liability for public civil servants, private companies can offer higher remunerations and better conditions of employment to attract qualified individuals in spite of the increased risk of criminal liability.

Considering the severity of the penalties imposed, the law gives more protection to defendants in criminal proceedings than in civil proceedings. Accordingly, criminal sanctions are more difficult and more expensive to impose than civil penalties.

Sewer moratoria have been imposed by officials in agencies and by some courts. Courts have imposed sewer

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240. Criminal penalties appear more harsh than civil penalties.

241. Section 402(h) of the CWA, 33 U.S.C. § 1342(h) (1988). A sewer moratorium is a prohibition against hooking new sewers to a treatment system or hooking new facilities to existing sewers. Because injunctive relief is impractical, EPA rarely enjoins POTWs that are out of compliance with effluent limitations set forth in their NPDES permits.

moratoria in only a few cases.\textsuperscript{243} In \textit{United States v. Massachusetts Metropolitan District Commission},\textsuperscript{244} the court ordered a moratorium on new sewer connections. Judge David A. Mazzone observed that an entity that falls behind schedule in eliminating pollution should not be allowed, simultaneously, to increase pollution through additional sewer connections. Following such an observation, the judge ordered a moratorium on new sewer connections throughout the Massachusetts Metropolitan District.

Moratoria have been used more frequently in other cases not involving violations of water laws. For instance, in \textit{New York State Association for Retarded Children v. Carey},\textsuperscript{245} the United States Court of Appeals for the Second Circuit demonstrated that shutting down a non-compliant state institution would be preferable to dictating to the community the means of spending their funds.

Practical considerations militate against the regular imposition of sewer bans on municipalities. Unlike private corporations, cities do not have alternate facilities to replace POTWs.\textsuperscript{246} Closing down a major treatment plant or imposing a moratorium on future sewer connections\textsuperscript{247} would threaten the community’s health and welfare. It is impractical to attempt to keep people from flushing their lavatories. Moreover, the remedy


\textsuperscript{245} 631 F.2d 162 (2d Cir. 1980).

\textsuperscript{246} St Paul’s Metropolitan Sewage Treatment Plant handles the demands of nearly 1.5 million Minneapolis-St. Paul residents. This constitutes about 80 percent of the metropolitan area. Minnesota Pollution Control Agency News Release, Oct. 28, 1981.

\textsuperscript{247} Supra note 234. Section 402(h) of the CWA allows a moratorium on sewer hookups when the municipality fails to comply with effluent limitations.
of a moratorium has an adverse economic impact on the district, particularly where industries might be trying to invest in the district. The relief is unfair to developers and commercial establishments that have planned or partly completed the installation of sewage treatment plants.

However, studies confirm that sewer moratoria can be effective in gaining the attention of the community and in ensuring compliance with the CWA. Since neither high technical expertise nor excessive financial resources are required to turn off a facility, a sewer moratorium is economical and easy to impose in a state whether or not it has a preexisting permit system for hookups. To ensure greater fairness and effectiveness, prior notice of the imposition of a moratorium should be given to the non-complying community. Such notice would reduce resistance and encourage the community to improve the conditions of the sewage treatment facility as soon as possible.

Receivers have been used in very few environmental cases. Receivership was used in United States v. City of

248. A former official of the Decatur, Illinois Sewer Authority Board confirmed that one community which had a history of persistent violations reacted positively to a threat to impose a prohibition on new sewers. The threat created an incentive for all the members of the public to attempt to resolve their problems. In this case, a sewer ban was more effective than a civil penalty of $25,000 in getting the attention of the community. Marcia R Gelpe, Pollution Control Laws Against Public Facilities, 13 Harv. Envtl. L. Rev. 116 (1989).

249. When the operators of a treatment facility are unwilling to comply, courts can resort to the appointment of a receiver who will comply with the court order and supervise the plant. A receiver is appointed by the court to run a facility in compliance with the court’s order. The receiver is normally entrusted with a wide range of authority, including the power to borrow monies, hire consultants and manage all operations of the plant under its control.

250. United States v. Detroit, 476 F.Supp. 512 (E.D. Mich. 1979). A court appointed the mayor of the city as receiver to avoid compliance problems that stemmed primarily from conflicts among the facility’s operators. The mayor was authorized to directly supervise the facility rather than be answerable to the Water Board, the Civil Service Commission, the City Council or the State.
where the defendant POTW consistently failed to adhere to NPDES permit requirements and judicial enforcement orders. Instead of pursuing conventional sanctions, the court placed the facility under the direct control of a receiver who was given full authority to operate the facility until compliance was achieved. Receivers have been elected more frequently in cases involving enforcement of other types of laws against public institutions, including school desegregation and prison disputes.

Receivership offers unique advantages in its adaptability to municipal offenders and in its coercive impact. Unlike sewer moratoria and monetary relief, receivership does not jeopardize community interests. Municipalities that previously viewed themselves as immune from enforcement proceedings are put on notice that effective municipal enforcement mechanisms exist and will be utilized where other remedies are ineffective.

However, since the plant will ultimately be returned to the city, it may be more practical and sustainable to ensure compliance and efficient operation and maintenance by employees of the plant. Hence, instead of appointing a receiver to operate the facility, an official from within the establishment can be appointed to ensure effective compliance with the court order. Alternatively, an administrator can be elected to supervise municipal compliance with the court's order. An administrator can put pressure on the


252. Supra note 250. The court quoted the principle laid down in the Morgan Case that "where the more usual remedies (contempt proceedings and injunctions) are not promising as they invite confrontation and delay; and when the usual remedies are inadequate, a court of equity is justified, particularly in aid of an outstanding injunction, in turning to less common ones, such as receivership, to get the job done."

253. Morgan v. McDonough, 540 F.2d 527, 533 (1st Cir. 1976). The United States Court of Appeals for the First Circuit upheld the appointment of a receiver to oversee all aspects of the desegregation of the Boston School District.

254. Administrator varies from a receiver in that the former normally does not have the authority to operate the facility directly.
state to assist the municipality. The primary problem with electing an administrator may be lack of funds to pay his salary. But, the salary can be justified if his appointment results in increased compliance and circumvents the need to resolve the dispute through more costly litigation.

**Summary of Main Points:**

The pitfalls in the enforcement model include: the failure, reluctance and inability of the judiciary to impose stringent penalties on POTWs; the failure of environmental agencies to institute rigorous enforcement measures against non-compliant POTWs; the weak safeguards against abuse of enforcement provisions; the ineffective mechanisms of coordination between public and private enforcement agencies; the disparity between the nature and the frequency of enforcement actions brought against industries and those against POTWs; the ineffective system of monitoring discharge and detecting violators and the difficulty of striking a balance between the various branches of government involved in enforcement. The disparity emanates primarily from a number of factors including: political, economic and practical considerations; the general misconception that POTWs do not make a profit and would be excessively hard hit by such penalties and the perceived variation between industries and POTWs in the method of financing, providing and investing in waste water treatment facilities. The shortcomings in the public enforcement model do not stem primarily from the unavailability of remedies, but from budgetary, institutional, and institutional, and

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255. The salary can be reduced if the administrator works part time.

256. Under enforcement of water pollution laws by government agencies is not primarily due to a lack of legal authority, but essentially to the failure and/or inability of relevant authorities to use their full powers against POTWs.

257. The aforementioned remedies exist to deal effectively with violations, on a case by case basis.
bureaucratic constraints, as well as impediments to the full use or application of remedies by relevant public enforcement agencies. Rigid public enforcement efforts (or threats of such action) have induced compliance among some municipalities. However, enforcement measures do not always result in POTW compliance, particularly in cases involving financially strapped districts. In enforcing the requirements of the CWA, the judiciary applies a strict liability rule and not a strict remedy principle.²⁵⁹

SECTION FOUR

CONCLUSION

Political, social and economic considerations have bedeviled the whole process of financing POTWs and of instituting enforcement action against non-compliant treatment facilities under the CWA. Despite such considerations, the judiciary and the legislature have still played an unpredictable role in shaping the enforcement model and in molding the mode of financing such facilities.

The deficiencies in the method of financing and investing in publicly owned treatment works stem primarily from the aforementioned pitfalls in the implementation of former Title II²⁶⁰ and current Title IV²⁶¹ of the CWA. A major pitfall of the system of financing and investing has been the lack of a significant role by market approaches in the development of publicly owned

²⁵⁸. The deficiency in the enforcement model stems primarily from problems with the institutional mechanisms of enforcement.

²⁵⁹. The court does not always impose a remedy on a POTW that has been found to have violated the Act. Instantaneous municipal compliance is not always possible.

²⁶⁰. See section two.

²⁶¹. See section two.
treatment plants. Given the non-excludable characteristic of the provision of waste water treatment services, some financially capable households have had an incentive not to pay for user fees, not to declare their willingness to pay, and to attempt to free ride. Partly because of the inability to ensure that only those that have paid for the services obtain the benefits, the private sector lacks the incentive to invest in the provision of such services.

Small financially depressed districts in particular were the major victims of the deficiencies in the modes of financing and investing in publicly owned treatment works. Additionally, such small districts violated the Act and were not deterred from non-compliance by the finding that financially deprived POTWs are not exempt from the provisions.262

On the face of it, lack of access to federal funds and to state loans contributed to the financial inability of municipalities to afford to comply with the CWA. But a closer look at the situation reveals that the availability of a high proportion of federal grants in relation to local funds has sometimes had a negative impact on the compliance of some POTWs, in part, because of the disincentive to efficiently invest in cost effective facilities and to effectively maintain and operate such plants.

Strict government enforcement efforts (or the threat of such measures), particularly against larger non-complying districts, have led to small increases in municipal compliance. However, small financially strapped communities have not reacted positively to such enforcement measures.

Deficiencies in the enforcement model include: the failure, reluctance or inability of the relevant enforcement agencies to seek remedies and/or institute rigorous enforcement measures, particularly against public facilities; the reluctance or failure of courts to fully apply the remedies; weak safeguards against abuse of the right of enforcement;263 ineffective coordination of public

262. See section two.

263. The enforcement model tends to suffer from over-enforcement by private enforcers and from under-enforcement by public environmental enforcement institutions.
CLEAN WATER ACT

and private enforcement agencies; biased enforcement measures;\textsuperscript{264} the ineffective system of monitoring discharge and of detecting violators and the difficulty of striking a balance between the various arms of government. The disparity between enforcement measures brought against industrial dischargers and those actions instituted against POTWs has stemmed primarily from some factors including: political, economic and practical considerations; the general misconception that POTWs do not make a profit from non-compliance and the perceived variation between industries and POTWs in modes of financing and investing in waste water treatment facilities.

Moreover, the judiciary applies a strict liability rule and not a strict remedy doctrine.\textsuperscript{265} Instantaneous POTW compliance has not always been possible and practical.

Considering the deficiencies in the mode of financing and investing, I propose the following: the introduction of increased flexibility into the system including an increased role by market approaches in the development of publicly owned treatment works; the relaxation of restrictive state laws on financing mechanisms; the provision of incentives for private participation and more judicial control over state legislation curbing financing for environmental projects.\textsuperscript{266}

The EPA should consider seeking legislative changes to Title IV of the Clean Water Act, including the establishment of a new fund exclusively for small community waste water treatment and management. The legislative amendments should include the extension of the SRF loan term beyond 20 years to enable small

\textsuperscript{264} Disparity between the measures brought against industrial dischargers and those actions instituted against POTWs. \textit{See} section three.

\textsuperscript{265} There has been a failure to use the available remedies. There are remedies available which satisfy the test of economy, fairness and effectiveness. The remedies should be fully applied. However, the nature of the relief imposed should be determined on a case by case basis.

\textsuperscript{266} \textit{See} section two. Judicial Abrogation of State Restrictions on Financing Mechanisms.
districts to repay their loans. Additionally, states should be encouraged to vary interest rates, primarily on the basis of economic need and financial hardship.

To deal with the problem of expensive and scarce tax exempt bonds, which make it difficult for public/private partnerships, environmental bonds should be reclassified as governmental bonds (which cost less to issue), provided that the proceeds are used primarily to finance public purpose projects.268

Considering the pitfalls in the enforcement model, I recommend the following: the implementation of a sound system of checks and balances between the various arms of government involved in enforcement; enactment of a statute providing an economic incentive for owners of treatment plants and for violators to comply with the discharge monitoring reports system; and the passage of legislation requiring owners of treatment plants to pay for inspection costs.

The legislature should enact a statute requiring private enforcers to pay the fines procured from suits into environmental project funds, to set up non-tax deductible credit projects and to use the monies solely for remediation of environmental harms. Such a statute would deal with the potential for abuse of the right to implement credit programs.269

Further, economic experts in environmental enforcement agencies should conduct intensive research to evaluate a number of municipal related matters including: the level of priority accorded waste water treatment projects by non-complying districts; the profits derived by such municipalities from non-compliance and the financial gains incurred from the diversion of funds to other more lucrative sectors of the economy.

To deal with the inaccuracy of the discharge monitoring report system, the legislature should enact a statute requiring the reduction of penalties of violators that religiously and voluntarily

267. State restriction on the amount of private activity bonds that can be issued.

268. See section two.

269. Supra note 219.
submit reports to environmental enforcement agencies. The legislation should require the imposition of a more stringent penalty on violators that are found guilty of trying to avoid submitting reports to the enforcement agencies. This statute would provide an economic incentive for violators to submit reports. To deal with the financial and technical constraints in conducting regular on-site inspection of treatment works, the newly established legislation should require all owners of the treatment works to pay the relevant agency for the cost of inspection. Regular on-site inspection of such plants will enhance the detection of violators who try to avoid submitting reports to the agency.

The implementation of a sound system of checks and balances between the various branches of government is a crucial prerequisite to effective enforcement under the CWA. Given the aforementioned reality that the executive is likely to be politically, economically and bureaucratically hampered from instituting tougher and more aggressive enforcement measures on POTWs, private citizen plaintiffs should continue to goad the executive into taking such enforcement measures. However, the executive should retain some discretionary control over the scope and direction of the enforcement process. Citizen plaintiffs should continue playing a supplemental role in accordance with and subject to legislative enactments and to independent and impartial judicial review. Effective environmental law cannot function

270. The relevant government agencies face financial and technical constraints to carrying out on-site visits to confirm the accuracy of the reports and to detect violators.

271. See section three. The requirement that citizen plaintiffs should continue prodding the government does not stem from a complete distrust of the ability of the latter to enforce the harsh requirements of the CWA but from the reality that such public agencies are likely to be politically, economically and bureaucratically constrained from instituting enforcement actions against noncomplying districts.

272. To safeguard against abuse, the judiciary should review such executive acts. For instance, if the executive was granted full discretionary powers to control private enforcers, there is the danger that the nongovernmental enforcers
without the judiciary’s creative involvement in the enforcement and oversight of the implementation of the CWA. The courts have a significant role to play in ensuring the power of the public to participate effectively in a democracy governed by complex and complicated bureaucracies. To encourage extensive enforcement by public agencies, Congress could reduce penalties and increase EPA’s enforcement budget.273