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NOTE

REGULATION OF NONCOMPLIANT PUBLICLY OWNED TREATMENT WORKS UNDER THE CLEAN WATER ACT

The federal government undertook a monumental task when it enacted the Clean Water Act. Obtaining and maintaining high national water quality standards is a challenge not easily met. The original enactment in 1972 was a first step, but unrealistic expectations and unforeseen difficulties necessitated several significant amendments. This Note examines the continuing problem of municipal noncompliance by highlighting past inadequacies and recent legislative and judicial initiatives.

I. INTRODUCTION ........................................... 901

II. THE MUNICIPAL WASTEWATER TREATMENT CONSTRUCTION GRANTS PROGRAM ....................... 906
   A. Past Failures of the Federal Program ...................... 906
      1. Inadequate Federal Funding .......................... 906
      2. Grants Program Delays .............................. 909
      3. POTW Design .................................... 911
      4. Operation and Maintenance ........................... 913
   B. Modifying the Construction Grants Program ................ 915
      1. Introduction ........................................ 915
      2. Cost-Efficient Facilities .............................. 916
      3. Streamlined Administrative Procedures ............... 921
      4. Creative Funding ................................... 922

III. INADEQUACY OF CWA ENFORCEMENT PROVISIONS ........ 924
   A. Introduction ................................... 924
   B. Inappropriateness of Section 309 Sanctions ............... 926
      1. Civil Penalties ...................................... 926
      2. Injunctive Relief .................................... 927
      3. Criminal Penalties .................................. 928
   C. Enforcement Recommendations ............................... 929
      1. Administrative Enforcement .......................... 929
      2. Judicial Enforcement ................................ 931

IV. CONCLUSION .............................................. 933

I. INTRODUCTION

The Clean Water Act\(^1\) (CWA) represents a massive federal attempt to


901
reverse the rapidly deteriorating quality of our nation's waterways. Motivated by the inadequacy of state water quality standards and common law remedies, Congress sought to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA implements this mandate by requiring that all effluent dischargers comply with a series of increasingly stringent water quality standards. Under the CWA, all dischargers were required to attain secondary treatment by July 1, 1977. All waters were to be fishable and swimmable (1972) (codified at 33 U.S.C. § 1251 note (1982)). In 1977, Congress enacted several significant amendments to the original 1972 Act. The amendments became known as the "Clean Water Act of 1977." See Pub. L. No. 95-217, 91 Stat. 1566 (1977) (codified at 33 U.S.C. § 1251 note (1978)). Following these amendments, the entire Act has commonly been referred to as the "Clean Water Act." See id.; [Curr. Dev.] ENV'T REP. (BNA) 1987 (Apr. 21, 1978) (Environmental Protection Agency announced it would refer to the original Act and all subsequent amendments as the Clean Water Act to "avoid confusion [in its] dealings with the public, the press, and the courts"). This Note refers to the 1972 Act and all subsequent amendments as the Clean Water Act (CWA).


3. See H. LIEBER, FEDERALISM AND CLEAN WATERS 11-14 (1975). Previously, enforcement of water quality standards was the sole responsibility of state officials. With few exceptions, however, states failed to enforce water pollution legislation, probably due to the fear of driving industry from the state with stricter environmental controls. Id. at 14.


Common law remedies were often unsatisfactory. Private nuisance demanded proof of a substantial and unreasonable interference with the private use and enjoyment of one's property. See, e.g., Boomer v. Atlantic Cement Co., 26 N.Y.2d 219, 257 N.E.2d 870 (1970). If a plaintiff was successful in meeting this standard of proof, the court was required to "balance the equities" between competing interests, which often favored the polluter. Id. The Boomer court refused to enjoin the operation of a polluting cement company, notwithstanding the findings that a nuisance existed and that plaintiffs had suffered substantial damage. Relying on the large disparity in economic consequences of the nuisance and of the injunction, the court assessed permanent damages and allowed the defendant to continue its operations. Id. Public nuisance required an adequate demonstration of standing to sue. The plaintiff was required to assert an injury to a public, not merely personal, interest. See Columbia River Fishermen's Protective Union v. City of St. Helens, 160 Or. 654, 87 P.2d 195 (1939).


7. Secondary treatment refers to sewage treatment techniques capable of removing
by July 1, 1983. Ultimately, all navigable waters must be free from pollutant discharges by 1985.

Regulation of effluent discharges from publicly owned treatment works (POTWs) is a primary objective of the CWA. Municipal discharges are required to reduce up to 90% of all organic matter in sewage. See Office of Water Programs Operations, U.S. Env'tl Protection Agency, Primer for Wastewater Treatment 5 (1980).

Secondary treatment is generally achieved through one of two recognized processes—trickling filters or activated sludge processes. Under the trickling filter technique, primarily treated effluent passes through a bed of stones approximately three to six feet deep. Bacteria gather and multiply on these stones until they can consume most of the organic matter in the sewage. Processed water then trickles out and is subjected to further treatment. While activated sludge techniques also treat sewage with bacteria, the process is accelerated by mixing the sludge with increased amounts of air and bacteria. See Office of Water Programs Operations, U.S. Env'tl Protection Agency, Primer for Wastewater Treatment 5 (1980).

The EPA currently defines secondary treatment in terms of biochemical oxygen demand (BOD), suspended solids, and pH. See 40 C.F.R. § 133.102 (1983). Present regulations require that BOD and suspended solid levels of treated effluent not exceed 30 milligrams per liter. Id. § 133.102(a), (b). PH levels must consistently range between 6.0 and 9.0. Id. § 133.102(c). These treatment requirements may be relaxed where POTWs are designed to handle both sanitary sewage and storm water. See id. § 133.103.


While most municipalities are subject to secondary treatment standards, the EPA may require a more stringent level of treatment where necessary to achieve set water quality standards. See 33 U.S.C. § 1311(b)(1)(C) (1982).

9. See id. § 1251(a)(2). Subsection (a)(2) provides: "[I]t is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983." Id.
10. See id. § 1362(7). Section 602 of the original Act defines navigable waters as "waters of the United States and territorial seas." Id. Courts have generally held that CWA provisions apply to navigable waters only. See, e.g., United States v. Ashland Oil & Transp. Co., 504 F.2d 1317 (6th Cir. 1974).
12. Id. § 1292(2)(A), (B). The CWA defines "treatment works" as "devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 1281 of this title, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works . . . ." Id. § 1292(2)(A). The CWA also contains a catch-all definition of treatment works: "any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water runoff, or industrial waste, including waste in combined storm water and sanitary sewer systems." Id. § 1292(2)(B).
charge of raw or partially treated sewage is a principal source of the pollution defiling our national waterways. Municipal wastewater treatment facilities constitute approximately twenty-six percent of all effluent dischargers. Consequently, the CWA provided for the reduction of municipal water pollution by requiring that municipalities attain a uniform minimum level of wastewater treatment. To facilitate compliance with these minimum wastewater treatment levels, Title II of the Act authorized federal grants for the construction of wastewater treatment facilities.

Although most industrial polluters have complied with CWA deadlines, POTW compliance has been unsatisfactory. Over fifty percent of all POTWs failed to meet the July 1, 1977 deadline for secondary treatment of sewage. "Major" municipal dischargers enjoyed even less compliance.

The discharge of sewage into a body of water may create severe environmental damage. The decomposition of organic matter consumes oxygen, and excessive oxygen demands may deprive fish, shellfish and aquatic wildlife of dissolved oxygen necessary to life. Solid matter from sewage may settle in layers on the floor of the water body and suffocate life forms that cannot escape. Acids and heavy metals may poison the water. In short, unrestricted discharges of sewage can cause environmental damage which in turn will affect the nation's health and welfare. The legacy of unrestricted sewage discharge is disease, reduced fishery and recreation resources, poisoned water supplies and ugly water bodies.


The CWA differentiates between municipal dischargers (POTWs) and private industrial dischargers. See, e.g., 33 U.S.C. § 1311(b)(1)(A), (b)(2)(A), (i) (1982). Throughout this Note, non-municipal dischargers will be referred to as industrial dischargers.
success, with fewer than thirty-five percent meeting the 1977 deadline.\textsuperscript{22} As of 1980, eighty-seven percent of all POTWs occasionally violated discharge limitations.\textsuperscript{23} Thirty-one percent of these violators had serious compliance problems, exceeding discharge limitations over fifty percent of the time.\textsuperscript{24} As a result, hopes for compliance with the 1985 standard appear remote.\textsuperscript{25}

Although many factors have plagued municipal performance, POTW noncompliance with CWA objectives appears to be the result of two fundamental problems. First, deficiencies in the Title II Construction Grants Program have prevented the timely construction of cost-efficient POTWs capable of achieving and maintaining CWA water quality standards.\textsuperscript{26} Second, the CWA lacks enforcement provisions that effectively discourage unsatisfactory POTW performance.\textsuperscript{27} This Note examines past deficiencies, highlights legislative efforts addressing past problems, and proposes possible solutions to remaining problems.

\textsuperscript{21} Because of limited resources, the EPA launched the Major Source Enforcement Effort (MSEE) in late 1977. \textit{See} Reed, \textit{Enforcement}, in \textit{AIR AND WATER POLLUTION CONTROL LAW: 1980} 542, 556 (E.L.I. 1980). Under the MSEE, the EPA focuses only on major dischargers for the purpose of enforcement priority. \textit{Id.} at 556. Under this scheme, municipal facilities discharging more than one million gallons per day or serving a population of 10,000 or greater are deemed “major.” \textit{See} Hearings on the Construction Grants Program, \textit{supra} note 2, at 1778 (testimony of Anne M. Gorsuch, Administrator, Environmental Protection Agency). As of 1980, 3731 permit holders were major municipal facilities. \textit{Id.}

\textsuperscript{22} As of 1980, 106 of these major municipal permit holders failed to attain the 1977 secondary treatment deadline. \textit{See} \textit{REPORT ON CONSTRUCTION GRANTS PROGRAM-1980, supra} note 20, at 3; \textit{see also} \textit{ENVIRONMENTAL QUALITY-1980, supra} note 15, at 131 (as of February 1980, the EPA estimated that 63% of all “major” municipal treatment facilities were in violation of CWA secondary treatment requirements).

\textsuperscript{23} \textit{See} United States General Accounting Office, \textit{Report by the Comptroller General of the U.S., Costly Wastewater Treatment Plants Fail to Perform as Expected} 9 (1980).

\textsuperscript{24} \textit{See} \textit{id.} Because of both the dismal compliance rate displayed by most POTWs and the relative success experienced with industrial dischargers, the EPA has indicated its intention to pursue municipal violators more actively. \textit{See} Office of Water Operating Guidance and Accountability System, Office of Water, U.S. Envtl. Protection Agency, Fiscal Year 1984 at 29 (1983) [hereinafter cited as \textit{FISCAL REPORT-1984}].

\textsuperscript{25} \textit{See} \textit{Hearings on the Construction Grants Program, supra} note 2, at 1525 (testimony of J. Taylor Banks, Senior Staff Attorney, National Resources Defense Council); \textit{see also} To Amend and Extend Authorizations for the Federal Water Pollution Control Act: \textit{Hearings on H.R. 3199 Before the Subcomm. on Water Resources of the House Comm. on Public Works and Transportation, 95th Cong., 1st Sess. 357 (1977)} (EPA estimated that over half of the nation’s POTWs will not be in compliance with secondary treatment by 1985, with full compliance unlikely until 1993).

\textsuperscript{26} \textit{See generally infra} notes 28-85 and accompanying text (discussing past failures of the federal program).

\textsuperscript{27} \textit{See generally infra} notes 145-81 and accompanying text (discussing CWA enforcement provisions).
II. THE MUNICIPAL WASTEWATER TREATMENT CONSTRUCTION GRANTS PROGRAM

A. Past Failures of the Federal Program

1. Inadequate Federal Funding

In order to achieve the effluent limitations set forth in the CWA, municipalities were promised lavish federal grants for the construction of sewage treatment plants. Congress realized that POTW compliance with the Act's rigid water quality standards heavily depended upon federal financial assistance. Accordingly, the Act authorized a maximum of eighteen billion dollars over fiscal years 1973 through 1975 for the construction of wastewater treatment facilities. As of 1981, over thirty-three billion dollars had been spent on sewage treatment programs, making Title II of the CWA the nation's second most expensive public works program. Until recently, these federal grants comprised seventy-five percent of all wastewater treatment construction expenditures, with state and local governments financing the remaining twenty-five percent.

Despite this formidable financial commitment, it soon became apparent that initial Title II funding was insufficient, rendering POTW compliance with future deadlines doubtful. In drafting the CWA, Congress seriously underestimated the huge costs of achieving secondary treatment standards. Congress has traditionally authorized four billion dollars

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29. See Note, supra note 2, at 733.
33. See Senate Is Starting On Reform Of U.S. Construction Grants For Sewage Treatment Plants, 39 Cong. Q., June 13, 1981, 1043. The only public works program receiving greater federal appropriations is the National Highway Program. See id.
34. See 33 U.S.C. § 1282(a) (1982). In 1981, however, Congress amended section 1282, reducing the federal share to 55% of all construction costs. See infra note 47 and accompanying text.
annually for the construction grants program.\textsuperscript{37} As of 1980, however, 120 billion dollars were required to meet CWA water quality standards.\textsuperscript{38} The cost will inevitably increase with inflation.\textsuperscript{39}

Although initial federal appropriations were grossly inadequate, Congress has consistently reduced funding of the Title II program. While the Clean Water Act Amendments of 1977\textsuperscript{40} authorized five billion dollars annually for fiscal years 1979 through 1982,\textsuperscript{41} this sum, when reduced by inflation, amounts to only 3.4 billion dollars annually in 1972 dollars.\textsuperscript{42} In effect, the 1977 amendments reduced funding for the Construction Grants Program by almost thirty percent. Failure to appropriate all authorized funds has further diminished available grant monies.\textsuperscript{43}


To identify specific costs for specific types of waste treatment, the EPA examines costs for eight different types of treatment. These methods include: secondary treatment (category I); advanced secondary treatment (category IIA); advanced waste treatment (category IIB); correction of infiltration/inflow (category IIIA); major rehabilitation of sewers (category IIIB); new collector sewers (category IVA); new interceptor sewers (category IVB); and control of combined sewer overflow (category V). See id. at 2-3. Of the $119.9 billion required, the EPA determined that $55.8 billion was required to finance categories I, II, and IVB. See id. at 4. Financing combined sewer overflows (category V) will require $37.17 billion. See id. at 5.


\textsuperscript{39} See infra notes 61-63 and accompanying text.


\textsuperscript{41} See 33 U.S.C. § 1287 (1982). Under section 1287, Congress authorized $1 billion for fiscal year 1977, $4.5 billion for fiscal year 1978, and $5 billion annually for each fiscal year 1979 through 1982 to implement the Title II Construction Grants Program. Id.

\textsuperscript{42} This figure assumed a 7.8\% annual rate of inflation as indicated by the Consumer Price Index (CPI). See Hearings on the Construction Grants Program, supra note 2, at 1529 (statement of the Natural Resources Defense Council).

\textsuperscript{43} See Ledbetter, Dozier & Jordan, Funding Municipal Wastewater Facilities in Georgia, 10 Current Mun. Prosbs. 206, 208 (1983) [hereinafter cited as Ledbetter]. Although Congress authorized $5 billion annually for fiscal years 1979 through 1982, Congress only appropriated $4.2 billion in fiscal year 1979, $3.4 billion in fiscal year 1980, and $3.2 billion in fiscal year 1981. Id.; see also Report on Construction Grants Program-1980, supra note 20, at 4 (pressures to balance the budget and bring inflation under control resulted in failure to appropriate all initially authorized funds); Hearings on the Construction Grants Programs, supra note 2, at 1742 (only $16.9 billion appropriated between 1977 and 1981); Financing Water Pollution Control, supra note 32, at 5 (slightly more than $30 billion appropriated to states since 1972); cf. Braga, Publicly Owned Treatment Works, in Air and Water Pollution Control Law: 1980, at 410, 413 (E.L.I. 1980) (Carter Administration appointed $3.7 billion for 1981 fiscal budget). Additionally, Congress re-
Recent conservative environmental and fiscal policies have also dramatically diminished federal contributions, aggravating municipal efforts to construct POTWs capable of meeting federal water quality standards. Under the Municipal Wastewater Treatment Construction Grant Amendments of 1981, federal funding for the Construction Grants Program was slashed to 2.4 billion dollars annually, a mere twenty-six percent of the funding levels authorized under the original Act. The 1981 amendments also reduced federal subsidization of construction costs from seventy-five percent to fifty-five percent. Additionally, several treatment systems became ineligible for federal funding.

While these conservative policies shift funding responsibilities away from the federal level, state and local officials are often unable to raise

scinded $1.7 billion in fiscal year 1980 and fiscal year 1981 funds, reducing the effective funding level for each of these years to approximately $2.4 billion. See Hearings on the Construction Grants Program, supra note 2, at 1742; Ledbetter, supra.

44. See FINANCING WATER POLLUTION CONTROL, supra note 32, at 7 (1981 amendments significantly alter the role of the federal government). These changes in part implement the "New Federalism" policy embraced by the Reagan Administration. Id. at 8. Under this policy, several programs historically funded and managed at the federal level are now being turned over to similar state agencies. Id. at 8-9.


47. Id. § 1282(a)(1). Federal reimbursement of 75% of all construction costs is preserved for projects granted funding prior to October 1, 1984. Federal contributions of 55% of construction costs is effective for all grants authorized after the October 1, 1984 deadline. Additionally, the federal share may be reduced below the 55% limit for any state upon the request by the governor of that state in concurrence with the EPA administrator. Id.

48. See id. § 1281(g)(1). Pursuant to this section, federal funds will 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." Id. Specific projects funded include wastewater treatment plants, projects to correct infiltration and rehabilitation of major sewers, collector sewers, interceptor sewers, and projects to correct and combine sewer overflows. FINANCING WATER POLLUTION CONTROL, supra note 32, at 7.

Operations not eligible for federal subsidization include construction of facilities to handle combined storm water and sanitary sewer overflows, see 33 U.S.C. § 1281(n)(1) (1982), and construction of POTW reserve capacity, in excess of existing needs, for anticipated community growth. See id. § 1284(a)(5); see also FINANCING WATER POLLUTION CONTROL, supra note 32, at 7. Additionally, the Title II program does not fund operational and maintenance costs. Id.

Some funding for these precluded programs, however, may be available. See 33 U.S.C. § 1281(n)(1) (1982) (funds available to states under section 1285 to address water quality problems due to the impact of discharges from combined storm water and sanitary sewer overflows where correction of such discharges is a major priority); see also id.

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the additional money necessary to satisfy federal objectives.\textsuperscript{49} Even under ideal economic conditions, it is doubtful that the bond markets which traditionally finance construction of POTWs can absorb a massive increase in state and local expenditures.\textsuperscript{50} Economically depressed regions face more serious obstacles. Because of their low visibility, POTWs are unable to successfully compete for scarce revenues against interests that are more popular and better organized.\textsuperscript{51} In decaying urban centers experiencing a declining tax base, local governments are financially unable to appropriate additional money for POTW construction.\textsuperscript{52}

2. \textit{Grants Program Delays}

In addition to inadequate federal funding, municipal efforts to satisfy CWA water quality standards have been hampered by serious delays in the distribution of Title II construction grants. Applicants presently seek funding through the complex and time-consuming Construction Grants Program administered by the Environmental Protection Agency (EPA).\textsuperscript{53} The grants program is divided into three steps: Step I, facility


\textsuperscript{50} See \textit{Hunciker}, supra note 36, at 137. Traditionally, state and local governments have financed nearly all of their 75% share through long-term borrowing, typically in the form of tax exempt bonds. \textit{Id.} Thus, municipal efforts to raise funding to construct POTWs pivots upon the health of the bond market. \textit{Id.}

In addition to the health of the bond market, state and local laws normally place ceilings upon state and local borrowing. \textit{Id.} at 139; \textit{see also} Article, \textit{Municipal Bonds and Property Tax Limitations}, 7 ENVTL. L. 453, 472-73 (1979) (many state and local statutes restrict the total amount of bonds that may be outstanding at any time to a fixed percentage of the assessed value of the issuing municipality).

\textsuperscript{51} See \textit{Hearings on the Construction Grants Program}, supra note 2, at 1542 (statement of Merilyn B. Reeves, Natural Resources Director, the League of Women Voters); \textit{see also} \textit{Effects of Proposed Reductions}, supra note 49, at 287-88. As observed by one official, "[t]he reality of local community finance is that, unlike most other local capital improvements, streets, schools, fire station [sic], water supply and flood control projects which have high visibility and high local priority, wastewater treatment plants because they mostly benefit other communities downstream have low visibility and low priority." \textit{Id.}

\textsuperscript{52} See Municipal Wastewater Treatment Construction Grants Program: Hearings Before the Subcomm. on Environmental Pollution of the Senate Comm. on Environment and Public Works, 97th Cong., 1st Sess. 22 (1981) (statement of Elizabeth Head, former President of the League of Women Voters of Rhode Island) [hereinafter cited as \textit{Hearings on Municipal Wastewater Treatment}].

\textsuperscript{53} See \textit{Hunciker}, supra note 36, at 131.
This arduous process causes significant construction delays. Treatment facilities costing less than one million dollars can expect the entire grant process to take 7.47 years. Projects that cost over fifty million dollars will require over 11.52 years to become operational.

Unfortunately, these delays will place many communities in violation of impending treatment deadlines. Under section 301(i) of the CWA, POTWs that are dependent on federal assistance must achieve secondary treatment by July 1, 1988. This deadline appears absolute, notwith-


55. Id. The textual discussion only begins to dramatize the significance of current administrative delays in the Title II program. A House Subcommittee Report recently observed that: "The program's administration has been directed by dozens of regulations, policy memoranda, and general operating guidance documents from EPA, each contributing to the seemingly endless list of prerequisites to be satisfied before a project could be approved and funded." REPORT ON CONSTRUCTION GRANTS PROGRAM-1980, supra note 20, at 5. Each prerequisite is mandatory with local officials failing to comply at their peril. Id. at 6.

56. See Hearings on the Construction Grants Program, supra note 2, at 1754. POTW construction is divided into five distinct phases including: Prestep I (start award of Step I); Step I (Step I award completed); Step II (preparation of Step II application to Step II completion); Step III (preparation of Step III application to completion of construction); and Post Step III (completion of construction to final project close out). Id. Approximately 50% of total project time is for Step III and Post Step III activities. Id. Step I consumes approximately 33% of total project time. Id.; see also id. at 1527 (statement of National Resources Defense Council) (Step III and Post Step III phases consume at least half of the total project time).

57. See id. at 1754; see also REPORT ON CONSTRUCTION GRANTS PROGRAM-1980, supra note 20, at 4 (construction of a POTW takes an average of eight years from submission of planning grant application to completion of construction); ENVIRONMENTAL QUALITY-1981, supra note 7, at 74.

58. See 33 U.S.C. § 1311(i)(1) (1982). Under subsection (i)(1), where the United States has failed to provide financial assistance to eligible POTWs in time to achieve effluent deadlines set forth at 33 U.S.C. § 1311(b)(1)(B), compliance with such deadlines may be extended by the Administrator until the earliest date by which compliance can be achieved with federal funds. In no event, however, shall this deadline for compliance be extended beyond July 1, 1988. Id.

The CWA originally contained no statutory mechanism for extending performance deadlines. See Rae, Enforcement, in AIR AND WATER POLLUTION CONTROL LAW: 1982, at 699, 721 (E.L.I. 1982). As the 1977 deadline for secondary treatment approached, however, funding delays rendered many POTWs incapable of compliance. While the EPA chose to exercise prosecutorial discretion, declining to seek legal action against noncompliant POTWs, see 7 [Curr. Dev.] ENV'T REP. (BNA) 219-21 (June 6, 1976) (in lieu of prosecution, POTW compliance schedule set forth in Enforcement Compliance Schedule Letter (ECSL)), state water quality officials argued that POTWs were required to meet CWA deadlines notwithstanding delinquent funding. See State Water Control Bd. v. Train, 559 F.2d 921 (4th Cir. 1977). In Train, the circuit court agreed, holding that CWA secondary treatment deadlines were unconditional. Id. at 924. Although section 301
standing continued dependence on federal grants. Because of the present lag between application and completion, however, many POTWs will not be operational and in compliance with effluent standards before 1990.

While making treatment deadlines unattainable, grant delays also threaten to escalate construction costs, making compliance with CWA objectives doubtful under existing funding levels. Inflated program costs are rapidly outdistancing annual appropriations. Since 1970, the price index for nonresidential construction has increased at a rate of 9.8 percent annually. Assuming a stable price index, inflation can be expected to increase total project costs by twenty billion dollars within the next ten years. Since many POTWs may not achieve secondary treatment until after 1990, inflation related costs will be significantly higher.

3. POTW Design

Although adequate funding is critical, effective sewage treatment also depends upon proper selection, design, and construction of treatment facilities. Since the program's inception, however, the EPA has squandered precious appropriations by financing overly expensive, needlessly sophisticated, and environmentally suspect POTWs which are wholly

deadlines were deemed absolute, the Train court held that in subsequent enforcement actions, courts must consider POTW ability to comply when fashioning sanctions. Id. at 927. Spurred by the inequities of the Train decision, Congress promptly amended the CWA, directly linking compliance with timely federal financial assistance. Pub. L. No. 95-217, § 45, 91 Stat. 1584 (codified at 33 U.S.C. § 1311(i)(1) (1982)).


60. See ENVIRONMENTAL QUALITY-1981, supra note 7, at 74.

61. See Hearings on the Construction Grants Program, supra note 2, at 1529. This rate is significantly higher than the 7.8% increase in the Consumer Price Index. Id.

62. See id. at 1547 (statement of Merilyn B. Reeves, National Resources Director, League of Women Voters of the United States).

Indeed, $20 billion in inflation-related costs is perhaps optimistic. In 1972, legislators believed that CWA objectives could be achieved at a total cost of $63 billion in 1972 dollars. By 1978, however, construction costs had climbed to $96 billion. Id. at 1718 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency). As of 1980, total costs had again risen to $120 billion. See 1980 NEEDS SURVEY, supra note 38, at 4. This increase is entirely due to inflation. Cf. Hearings on the Construction Grants Program, supra note 2, at 1760.

Advocates of present policies, however, are quick to point out that such figures are misleading. For example, total 1978 needs in 1980 dollars were estimated at $130 billion. See 1980 NEEDS SURVEY, supra note 38, at 14. Total 1980 needs, however, were only $119.9 billion, representing a 10.67% decrease in total needs. Id.

63. See Hearings on the Construction Grants Program, supra note 2, at 1547 (statement of Merilyn B. Reeves, National Resources Director, League of Women Voters of the United States) (funding anticipated for next 22 years).

64. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 3 (cleanup of municipal discharges results from treatment plants properly designed, constructed, equipped, operated, and maintained, and not inevitable result of expenditures).

65. See Hearings on the Construction Grants Program, supra note 2, at 1527 (statement of
inconsistent with community needs.\textsuperscript{67} Between ten and twenty percent of these POTWs are poorly designed,\textsuperscript{68} resulting in repeated permit violations and necessitating additional "fix-up" grants to remedy initial errors.\textsuperscript{69}

The CWA's legacy of poorly designed POTWs is largely attributable to the EPA's erroneous "presumption" that grant applicants are qualified to oversee POTW construction.\textsuperscript{70} In reality, municipalities often lack the technical and administrative expertise necessary to design and

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\textsuperscript{67} See Hearings on the Construction Grants Program, supra note 2, at 1527 (statement of Natural Resources Defense Council) (some plant designs are the wrong solutions to problems better addressed by other treatment techniques).


\textsuperscript{69} The CWA does not authorize funding to "fix up" previously constructed plants that fail to perform properly due to design or construction deficiencies. See 33 U.S.C. \textsection 1284(d)(2) (1982) (failure to meet design specifications and effluent limitations shall be corrected in a timely manner at other than federal expense).

\textsuperscript{70} See 40 C.F.R. \textsection 30.340-3 (1983). "Submission of a grant application shall constitute an applicant's assurance that he can and will meet the standards set forth in \textsection 30.340-2. An applicant may be presumed to be responsible in the absence of any question as to his ability to meet the standards." \textit{Id}.
construct a cost-efficient treatment facility.\footnote{71}{See Report on Construction Grants Program-1981, supra note 14, at 23.} Acknowledging their limitations, many communities seek private assistance from consulting firms that have minimal experience with POTW construction.\footnote{72}{Id. One expert observed, "If you look at the proliferation of engineering firms since the start of the EPA program, you will find there is a tremendous increase in the total number of firms involved in this work. Some of those people came in with no experience whatsoever." Id. In an attempt to discourage incompetent participation, the CWA now imposes liability on consulting engineers for design and construction errors. See infra notes 120-25 and accompanying text.} Local officials, equally unfamiliar with POTW construction, seldom know if they are receiving sound direction.\footnote{73}{See Report on Construction Grants Program-1981, supra note 14, at 23; see also id. at 18 (inability of local officials to obtain adequate information on the performance capabilities and reliability of equipment).}

Administrative guidance also has proven sorely deficient. Section 203 of the CWA presently requires EPA design reviews for all federally funded POTWs.\footnote{74}{See 33 U.S.C. § 1283(a) (1982). As a condition to receiving federal funding, section 1283(a) requires all applicants to submit "plans, specifications, and estimates for each proposed project for the construction of treatment works . . . ." Id.} Unfortunately, understaffed and underqualified agency personnel limit the effectiveness of EPA assistance and foster perceptions of EPA incompetence.\footnote{75}{See Report on Construction Grants Program-1981, supra note 14, at 24; see also id. at 28.} Indeed, “[t]he agency and the States have been criticized for inadequate reviews of plans and specifications and the oversight of construction and project management activities. Such reviews are often minimal and have not been as comprehensive as desired.”\footnote{76}{Id. at 24 (emphasis in original).}

4. Operation and Maintenance

CWA water quality objectives can only be attained if on-line POTWs are operated and maintained adequately. Unless provisions are made for proper operation and maintenance (O&M), even well designed and constructed POTWs will perform poorly.\footnote{77}{Id. at 9. Expert O&M is required in part because of sophisticated technologies employed by treatment facilities. Such techniques are necessary in light of the waste treated. POTWs handle raw sewage that varies in strength, composition, and volume. Unlike the predictable cold chemistry of manufacturing, POTW processes are biological and easily upset. Id.} Indeed, expert O&M can substantially improve the performance capabilities of even poorly designed POTWs.\footnote{78}{Id. at 11.}

Nevertheless, studies repeatedly indicate that noncompliance with present water quality standards is largely due to substandard O&M of expensive POTWs.\footnote{79}{See id. at 9. Not only do poor O&M techniques result in substandard performance, they fuel dissatisfaction with the entire construction grants program, leading to an}
large municipal facilities are frequently operated by underpaid and un-
derqualified personnel.\textsuperscript{80}

Past administrative policies have done little to encourage proficient O&M of federally subsidized POTWs. Initial EPA efforts deemphasized efficient O&M techniques, instead concentrating upon the issuance of National Pollutant Discharge Elimination System (NPDES) permits and Title II construction grants.\textsuperscript{81} Additionally, funding for critical training programs has continually declined. Under the Act, Congress initially authorized 7.5 million dollars annually for POTW operator training programs.\textsuperscript{82} By 1978, however, annual authorizations were slashed to three million dollars.\textsuperscript{83} Failure to appropriate all authorized funds further reduced federal money earmarked for O&M training.\textsuperscript{84} The EPA instead chose to rely upon private sector resources and an aggressive enforcement ambivalent federal commitment. One congressman recently observed that, "[w]e simply cannot ignore the incongruity of spending $5 billion a year in federal funds for new plants with the foreknowledge that only a fraction of them will be operated properly . . . ." \textit{Id.} at 4.


\textsuperscript{81} See \textit{Hearings on the Construction Grants Program}, supra note 2, at 1709 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency). Upon enactment of the 1972 CWA, large sums of money authorized to fund thousands of projects suddenly became available. The EPA was under considerable pressure to move grants out to municipalities as fast as possible. Since EPA resources were limited, efforts were concentrated upon processing grant applicants. \textit{Id.; see also Report on Construction Grants Program-1981}, supra note 14, at 2. With efforts focused upon grant applicants, ensuring proper O&M of these facilities was initially overlooked. \textit{Id.} at 9.

\textsuperscript{82} See 33 U.S.C. § 1254(u)(2) (1982). Section 1254(u)(2) provides funding for section 1254(g)(1). \textit{Id.} Under section 1254(g)(1), Congress authorizes CWA funds which finance pilot programs for the training and retraining of personnel that operate and maintain POTWs. \textit{See id.} § 1254(g)(1). These programs may be initiated in cooperation with state and local agencies and educational institutions. \textit{Id.} To fund these pilot programs adequately, Congress initially authorized $7.5 million for fiscal years 1973-75. \textit{See id.} § 1254(u)(2). No funding was authorized for 1976. \textit{Id.} In 1977, Congress authorized $2 million. \textit{Id.}

\textsuperscript{83} See \textit{id.} § 1254(u)(2). Authorizations for section 1254(g)(1) pilot programs were reduced to $3 million annually for fiscal years 1978-82. \textit{Id.}

Other educational programs have experienced similar cutbacks. The CWA permits funding of grants for training projects, \textit{see id.} § 1254(g)(3)(A), and research fellowships for promising POTW research. \textit{See id.} § 1254(g)(3)(B). Authorizations that in part funded these programs have been reduced from $100 billion annually in 1973 to $22.77 billion annually in 1982. \textit{See id.} § 1254(u)(1).

\textsuperscript{84} \textit{See Report on Construction Grants Programs-1981}, supra note 14, at 13; \textit{see also Report on Construction Grants Program-1980}, supra note 20, at 8 (annual
program to compel municipal expertise. 85

B. Modifying the Construction Grants Program

1. Introduction

Reinstatement of adequate federal funding would significantly facilitate municipal compliance with CWA effluent standards. As noted earlier, reduced funding merely increases long term costs 86 and shifts funding responsibilities to state and local governments which are unable to marshal additional revenues. 87 Ideally, 3.5 billion dollars annually should be authorized for the Title II Construction Grants Program. 88 Additionally, the seventy-five percent federal share should be reinstated. Increased funding would both reaffirm the federal commitment to original CWA goals 89 and accelerate national attainment of secondary treatment standards. 90

Present conservative fiscal and environmental policies, however, militate against future reinstatement of previous Title II funding levels. Critics allege that excessively generous federal grants foster a municipal attitude that POTW projects are financed with free money. 91 Reduced appropriations less than half the amount annually authorized and needed to carry out federally mandated tasks).

85. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 13. The EPA has substituted O&M training programs with several other alternatives enjoying only marginal success. For example, in 1977, the EPA issued guidance documents allowing grant communities to use grant money during the final stage of construction and initial plant start up for training of plant personnel. Id. Many experts, however, perceive this training to come too late in the process. Id.

Evidence also indicates that training programs presently in effect fail to train POTW personnel adequately for subsequent plant O&M. As one commentator noted:

Existing programs to train operators and provide them with the required information to properly monitor, control, and operate their plants are ineffective. Operators have not been able to transfer their classroom instruction to practical on-site problem solving; they do not use much of the guidance and instructional materials provided by the federal programs because they do not understand them and they are provided with often conflicting information from a variety of sources that are not held accountable for the instruction provided.

Id. at 12-13.

86. See supra notes 61-63 and accompanying text.

87. See supra notes 49-52 and accompanying text.

88. See Hearings on the Construction Grants Program, supra note 2, at 1529 (statement of Natural Resources Defense Council). Present estimations reveal that CWA goals can be satisfied within 12 years if federal funding is increased to $3.2 billion annually. Id. In light of the adverse fiscal consequences of stretching out the Title II program, however, authorizations should instead be increased to $3.5 to $4 billion annually. Id.

89. Id. at 1532.

90. Id. at 1529.

federal funding would lead to improved stewardship and construction of more cost-efficient facilities.92

In light of these current attitudes, efforts must focus upon maximizing the return on a reduced federal investment. In response to past failures, recent legislative and administrative initiatives have sought to improve administration of the Construction Grants Program. While the success of these efforts is still unknown, cause for optimism exists. Recent initiatives include: (1) selection of more cost-efficient treatment facilities;93 (2) streamlined administration of Title II grant applications;94 and (3) local financing of treatment facilities.95

2. Cost-Efficient Facilities

Recent federal efforts have emphasized more efficient use of grant money by limiting federal funding of excessively expensive wastewater treatment projects. The CWA limits Title II construction grants to projects for secondary or more stringent treatment, new interceptors, and infiltration-inflow correction.96 Projects must constitute "the most economical and cost-effective combination of treatment works over the life of the project . . . ."97 Funding is no longer available to wastewater

92. See id.; see also id. at 18 (generous 75% funding tends to encourage the use of overly complex or sophisticated technologies).
93. See infra notes 96-125 and accompanying text.
94. See infra notes 126-34 and accompanying text.
95. See infra notes 135-44 and accompanying text.
96. See 33 U.S.C. § 1281(g)(1) (1982). This limit, however, provided that the administrator continue to allocate 20% of the grants to other projects authorized under section 1292(2). Id.

Additionally, communities that construct wastewater treatment facilities without federal funding may be reimbursed for project costs. See id. § 1286(f). Previously ineligible projects may be refunded only if the Administrator approves all plans, specifications, and estimates before construction. Additionally, nonfunded projects must be constructed in accordance with all procedures and requirements imposed upon Title II projects except for procedures and requirements concerning projects constructed with the aid of previously allocated funds. Reimbursement will not be available where payments would exceed state allotments. Id.

Many opposed federal reimbursement of previously constructed POTWs. See, e.g., Hearings on the Construction Grants Program, supra note 2, at 1724 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency) (administration opposition to reimbursement). Critics argue that unrealistic expectations of future reimbursement create little incentive to construct cost-efficient POTWs. Id. at 1725. Many favor reimbursement, however, arguing that communities should not be penalized for moving ahead in the absence of federal funding. See Hearings on Municipal Wastewater Treatment, supra note 52, at 22 (statement of Elizabeth Head, former president of the League of Women Voters of Rhode Island).

97. See 33 U.S.C. § 1298(b) (1982). Making funding contingent upon "cost-effectiveness" attempts to implement the CWA policy mandating that all POTWs shall be "the most economical and cost-effective combination of devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage . . . ." Id. § 1298(a). In con-
treatment projects that exceed the current needs of the community.98 POTW reserve capacities that exceed current municipal needs must be locally financed.99 Finally, the CWA limits funding for unnecessary advanced wastewater treatment100 and advanced secondary treatment projects.101

Legislation also encourages development and use of cost saving innovative and alternative (I&A) sewage technologies.102 Innovative wastewater treatment techniques are developed methods which represent a significant advance over state of the art treatment techniques.103 Considering whether a facility is cost-effective, the Administrator may consider construction, operation, maintenance, and replacement costs. See id. § 1298(b).

98. See id. § 1284(a)(5). The CWA initially provided for funding of some reserve capacity. The amount of reserve capacity funded was determined by comparing the cost of constructing reserves during initial construction, and the cost of adding the reserves at a later date. In determining the amount eligible, the Administrator was to consider efforts to reduce total sewage flow, projected populations, and projected commercial and industrial development. Id.

POTW reserve capacity generated a great deal of debate before enactment of the 1981 amendments. Advocates claimed that refusing to fund reserve capacities would limit local growth and result in noncompliance with federal standards by the time the POTW was finally constructed. See Effects of Proposed Reductions, supra note 49, at 233 (testimony of Charles E. Nemir, Deputy Director, Texas Department of Water Resources); Ledbetter, supra note 43, at 210 (restrictions on reserve capacity will limit growth by imposing sewer connection moratoriums). Critics argue that communities should more appropriately bear the burden of financing plant capacity for local growth. See Hearings on the Construction Grants Program, supra note 2, at 1535 (statement of National Resources Defense Council).

Ultimately, Congress voted to abolish funding of reserve capacity. After October 1, 1984, no grants will be made to portions of a POTW that provide reserve capacities in excess of existing needs. See 33 U.S.C. § 1284(a)(5) (1982). Funding will continue, however, for POTWs receiving grant money prior to this date. See id. § 1284(c).

99. See generally supra note 98.


101. Id.

102. See infra notes 109-15 and accompanying text. Indeed, consideration of I&A technology is mandatory. Before any applicant is eligible for federal grant money, the applicant must demonstrate that innovative and alternative technologies have been fully studied and evaluated. See 33 U.S.C. § 1281(g)(5) (1982). The CWA also requires that a portion of the federal share be “set aside” for projects utilizing I&A technologies. See id. § 1285(h), (i). Not less than one half of one percent of funds allotted to states must be set aside for innovative projects. Id. § 1285(i). Additionally, after September 30, 1981, between 4 and 7.5% of all federal funds allotted must be set aside for alternative or unconventional systems. Id.

103. Innovative wastewater treatment techniques are defined as:

[D]eveloped methods which have not been fully proven under the circumstances of their contemplated use and which represent a significant advancement over the state of the art in terms of meeting the national goals of cost reduction, increased energy conservation or recovery, greater recycling and conservation of water resources (including preventing the mixing of pollutants with water), reclamation or reuse of effluents and resources (including increased productivity of arid lands), improved efficiency and/or reliability, the beneficial use of sludges or effluent constituents, better management of toxic materials or increased environmental benefits.
native technologies are proven nonconventional methods of treating wastewater. Alternative technology differs from innovative technology in the extent to which it has been developed and used. Alternative technology has been proven and utilized in actual practice, whereas innovative technology has not been fully proven under the circumstances of its contemplated use.

Although I&A technologies significantly diminish local costs, communities have traditionally been hesitant to employ such technologies. Officials are hesitant to assume the economic and political risks of committing millions of dollars to POTWs using unproven technologies. Fearing subsequent liability, engineers are equally wary of recommending I&A treatment techniques.

In response to these reservations, the CWA provides financial incentives to communities willing to pursue I&A treatment technologies. Cost effective wastewater treatment projects utilizing I&A technologies are eligible for up to eighty-five percent federal funding, thirty percent more


Alternative wastewater treatment techniques "are proven methods which provide for the reclaiming and reuse of water, productively recycle waste water constituents or otherwise eliminate the discharge of pollutants, or recover energy." Id. para. 4. Alternative types of waste treatment include land treatment, aquifer recharge, aquaculture, containment ponds, treatment and storage prior to land application, and direct reuse. See, e.g., Randolph, supra note 66, at 4.

See 44 Fed. Reg. 29534-35 (1979). Although the CWA does not define advanced wastewater treatment (AWT), the EPA has promulgated regulations defining AWT as systems that provide 50% total nitrogen removal or that reduce BOD and suspended solids to less than 10 mg/1 each. Id.

Reducing the unnecessary funding of AWT projects can result in significant federal savings. The EPA projects that $120 billion is required to achieve full POTW compliance with federal standards by the year 2000. Of these funds, over $1.4 billion constitutes funding for AWT projects. Further, these costs represent over 4% of total treatment needs and 3% of treatment projects. See 1980 NEEDS SURVEY, supra note 38, at 5, 8.

The EPA has defined Advanced Secondary Treatment (AST) as treatment more stringent than secondary treatment, but less stringent that AWT. Id. As with AWT systems, funding cutbacks for AST projects can greatly reduce the amount of money necessary to achieve compliance by the year 2000. The EPA estimates that by the year 2000, $4.2 billion (in 1980 dollars) will be spent on construction of AST systems. This constitutes nearly 12% of projected total treatment dollar needs and 12% of treatment projects. See 1980 NEEDS SURVEY, supra note 38, at 5, 8.

See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 41; see also 123 CONG. REC. 39, 170 (1977) (perception that I&A techniques involve greater risks and higher costs than conventional technology).

See Hearings on Municipal Wastewater Treatment, supra note 52, at 11 (statement of Robert Moore, Connecticut Department of Environmental Protection).

See 33 U.S.C. § 1282(a)(2) (1982). After September 30, 1981, communities that apply for Title II construction grants to construct POTWs utilizing I&A technologies, are entitled to a federal contribution that is at least 20% greater than the contribution for conventional POTWs. Total federal contributions, however, may not exceed 85% of total construction costs. Id.

While federal officials remain committed to the development and use of I&A technol-
than the federal share for conventional systems. If an I&A system fails within two years of completion, the municipality is entitled to receive 100 percent of all replacement costs.

Although skepticism toward I&A technologies remains strong, many communities are beginning to take advantage of federal incentives. As of 1981, the EPA had awarded almost 700 I&A grants totaling nearly 900 million dollars. Local demand for I&A set-aside funds has also gradually increased.

Recent CWA amendments also acknowledge that expert administrative guidance in selecting and designing new POTWs must be provided if new technologies are to translate into economical, efficient treatment facilities. In addition to mandating EPA design reviews, POTW projects must also undergo a value engineering review. This review attempts to identify unnecessarily high project costs before actual con-

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10. The federal share for conventional POTW construction costs is 55%. See id. § 1282(a)(2).

11. See 33 U.S.C. § 1282(a)(1). Prior to the 1981 amendments, the federal contribution was 75% of all project costs. See supra note 109 and accompanying text.


13. Id. at 40; see also Hearings on the Construction Grants Program, supra note 2, at 1526 (statement of the Natural Resources Defense Council) (over 700 I&A grants totalling over $800 million at the construction stage).

14. See supra note 102.

15. See Report on Construction Grants Program-1981, supra note 14, at 40 (two-fifths of the set-aside funds available for fiscal years 1979 and 1980 were committed during the nine month period ending March 31, compared to the commitment of only one-fifth of available set-aside funds during the initial 21-month period).

16. See supra note 74 and accompanying text; see also Fiscal Report 1984, supra note 24, at 34. Pursuant to 33 U.S.C. § 1283(a) (1982), the EPA will review each grant application, ensuring that the proposed facility is both technologically appropriate and within the financial capabilities of the community. Id.

17. See 33 U.S.C. § 1298(c) (1982). Prior to the approval of any construction grant exceeding $10 million, the Administrator shall require a “value engineering review.” Id. This review attempts to identify unnecessarily high construction costs that may be reduced without compromising either the reliability or efficiency of the proposed project. Id.; see also Fiscal Report 1984, supra note 24, at 32 (per section 1298(c), the EPA intends to oversee value engineering program to ensure efficient design of construction projects).

Requiring value engineering has already yielded significant savings. As of 1980, 105 projects had undergone value engineering. See Hearings on the Construction Grants Program, supra note 2, at 1766 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency). These reviews resulted in savings of over $157 million; nearly 5% of total project costs. Id.
struction. Communities are also encouraged to file a capital financing plan that outlines future treatment needs, anticipated POTW expansion, and financing schemes which will fund future expansion. Cognizant of future needs and financial capabilities, administrative officials can better advise communities that are designing and constructing wastewater treatment facilities.

While administrative participation should improve municipal decisionmaking, the imposition of liability on consulting architects and engineers for POTW deficiencies should greatly facilitate proper design and construction. In the past, consulting engineers and architects were rarely held responsible for their recommendations, designs, or equipment. The perception of unaccountability in the past encouraged participation by firms with minimal expertise and experience in POTW construction. Once construction was completed, substandard performance became a local problem, often requiring expensive fix-up grants.

The CWA attempts to discourage incompetent participation by hold-

119. See id. § 1281(o). Although not mandatory, the CWA encourages applicants to file such a plan. Id. Under section 1281(o), capital financing plans should project future community treatment needs anticipated within the next 10 years. Id. § 1281(o)(1). The capital financing plan should detail the nature, extent, timing, and cost of anticipated expansion and reconstruction. Id. § 1281(o)(2)-(3).

To further assist communities in properly planning effluent treatment facilities, the EPA's Office of Water developed the Policy on Financial and Management Capability for publicly owned treatment works in 1983. See FISCAL REPORT 1984, supra note 24, at 33. This policy encourages communities to consider the entire range of financial impacts associated with POTW construction. Id. Further, this policy guides communities toward selecting cost-efficient designs that are technologically and financially well-suited to their needs. Id.

120. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 27, 30; Hearings on Municipal Wastewater Treatment, supra note 52, at 46 (statement of Alfred E. Peloguin, Executive Secretary, New England Interstate Water Pollution Control Commission). Others are ambivalent about imposing liability. The threat of liability is likely to both increase project costs and reduce innovative project designs. Id. at 11 (statement of Robert Moore, Director of Water Compliance Unit, Connecticut Department of Environmental Protection).

121. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 27. One expert noted:

The engineering design community and equipment manufacturers and suppliers take key roles in the pollution control effort. Yet in providing their services they are not held responsible for the decisions they make and the design of facilities, for the reliability and operability of the facilities or equipment they furnish, nor for the information they disseminate to plant administrators and operations personnel. As a result, the local community is put in the untenable position of spending a lot of money for a treatment plant that may be poorly designed or is incapable of being operated properly.

Id.

122. Id. at 23.
123. See supra note 69.
ing supervising engineering firms accountable for deficient POTW design and construction. Design and construction engineers must continue their relationship with grant applicants for one year after the completion of construction and initial operation of the POTW. Where POTW performance proves unsatisfactory, the supervising firm may be held responsible.

3. Streamlined Administrative Procedures

Notwithstanding imminent deadlines and skyrocketing program costs, rapid processing of grant applicants is counterproductive. Past program failures clearly demonstrate that comprehensive and rational decision-making is critical to the efficient design, construction, and administration of treatment facilities. Undue acceleration of applicant evaluations minimizes the impact of initial EPA supervision, resulting in subsequent POTW performance deficiencies.

If CWA objectives are to be achieved, however, efforts must be directed toward simplifying the application process. Although agency officials have repeatedly echoed the need for streamlined implementation of the Title II program, recent initiatives signal a genuine desire to expedite grant applicants. Small communities with simple treatment requirements may receive a single grant for POTW construction, thereby circumventing the traditional three-step grant process. For larger facilities not amenable to one-step permitting, the EPA is presently revis-

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124. 33 U.S.C. § 1284(d)(1) (1982). During this one year period, the engineer or engineering firm must supervise POTW operation and train personnel in the proper operation of the POTW. Id. By continuing the relationship between the engineering firm and the POTW for one year, the CWA attempts to increase project responsibility. Historically, liability was difficult to impose on any one party since numerous local officials, engineers, equipment manufacturers, citizens groups, and EPA officials all affected POTW construction. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 28. By assigning responsibility to specific engineers, the threat of liability, and consequently the need for competency, is increased.


126. See Hearings on the Construction Grants Program, supra note 2, at 1743 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency); FISCAL REPORT 1984, supra note 24, at 31 (specific program objective is to streamline and simplify program management requirements).

Attempts to streamline procedures are mandatory under the CWA. See 33 U.S.C. § 1251(f) (1982). Under section 101(f), the Act encourages the minimization of paperwork and interagency decision procedures. Id. Further, the Act encourages the prevention of needless duplication and unnecessary delays. Id. Unfortunately, past efforts have rendered this section "little more than a well-intentioned rhetorical flourish." REPORT ON CONSTRUCTION GRANTS PROGRAM-1980, supra note 20, at 5.

127. See 33 U.S.C. § 1283(a) (1982). Under section 1283(a), treatment works that cost $8 million or less and serve a population of 25,000 or less may receive a single grant for the cost of designing and constructing the POTW. Id.

128. See supra note 54 and accompanying text.
ing Title II grant requirements. These modifications seek to eliminate duplicative requirements, differentiate between mandatory and discretionary procedures, and ensure fast-tracking for high priority POTWs experiencing compliance difficulties.

Although these efforts are laudable, additional modifications are required. One-step grants are currently limited to projects costing less than eight million dollars or communities with populations under 25,000.

In spite of federal attempts to consolidate permit requirements, problems of duplication and conflict remain.

4. Creative Funding

Municipal wastewater treatment authorities must find ways to finance POTW projects creatively with less dependence on federal grant assistance. Alternative financing would both reduce the demands placed on the federal grants program and enable the EPA to concentrate its financial efforts on high priority municipalities. By avoiding the lengthy federal grant application process, communities can build treatment facilities faster, thereby minimizing construction costs and enabling timely compliance with CWA effluent deadlines. Consequently, the EPA's

129. See Hearings on the Construction Grants Program, supra note 2, at 1729 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency).

Although one-step permitting for small community treatment systems can effectively accelerate the grant application process, the size and complexity of large metropolitan municipal systems militates against one-step permitting for these facilities. See id. at 1536 (statement of Natural Resources Defense Council); Hearings on Municipal Wastewater Treatment, supra note 52, at 10 (statement of Robert Moore, Director of Water Compliance Unit, Connecticut Department of Environmental Protection). Maintaining Step I and Step II permitting for larger wastewater facilities is the only accurate method of ascertaining water pollution needs, costs, and benefits, and permits long-term management of construction needs and funds. Id.

130. See Hearings on Construction Grants Program, supra note 2, at 1729 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency).

131. Id.

132. Id. at 1743.


135. POTW financial eligibility for Title II construction grants is determined by both state and federal officials. Under section 1287, funding is authorized for the Construction Grants Program. See 33 U.S.C. § 1287 (1982). Funding is distributed to each state in proportion to the state's statutorily authorized allotment. See id. § 1285(c). This allotment scheme distributes money to individual states according to the ratio "that the estimated cost of constructing all needed publicly owned treatment works in each State bears to the estimated cost of construction of all needed publicly owned treatment works in all of the States." Id. § 1285(a). States then distribute these funds in accordance with their state priority list. See id. § 1296. Distribution at the state level is limited to POTWs utilizing certain eligible treatment techniques. Id.

136. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1981, supra note 14, at 54. By circumventing the oppressive Title II application process, municipalities can proceed to construct satisfactory POTWs within one-half to one-third the time expected. By
municipal compliance policy encourages local authorities to develop their own funding sources for construction, maintenance, replacement, and compliance of their facilities.\textsuperscript{137} To encourage creative financing, the EPA has warned all municipalities that they must meet the July 1, 1988 secondary treatment deadline whether or not federal grant aid is available.\textsuperscript{138}

Although few programs have been enacted at the state level, officials are actively seeking alternative financing schemes that will replace declining federal contributions.\textsuperscript{139} Some states hope to finance local projects with increased state grants.\textsuperscript{140} In light of limited state resources, however, most states intend to provide additional funds by increasing the size and flexibility of their loan and loan guarantee programs.\textsuperscript{141} These programs might be financed through state tax increases,\textsuperscript{142} new bond issues,\textsuperscript{143} or increased contributions from current state revenues.\textsuperscript{144}

speeding up the construction process, POTW construction costs are greatly reduced. \textit{Id}. Indeed, the accelerated construction process can reduce total project costs by nearly 40-45%.

\textsuperscript{137} \textit{See Water Pollution Control} (BNA) No. 79, at 2 (Sept. 30, 1982) (future funding treatment).

\textsuperscript{138} \textit{Id}. Except for section 1311(i), the CWA does not make compliance with CWA deadlines contingent upon the receipt of federal funding. \textit{See Report on Construction Grants Program-1981, supra} note 14, at 55. Historically, however, the EPA has not prosecuted municipal violators ineligible to receive federal funding, creating little incentive for these municipalities to seek other means of financing. \textit{See id.; Hearings on the Construction Grants Program, supra} note 2, at 1553 (statement of Merilyn B. Reeves, Natural Resources Director, League of Women Voters of the United States). Consequently, CWA deadlines must apply notwithstanding grant eligibility, pressing local officials to seek alternative means of financing. \textit{See Hearings on Municipal Wastewater Treatment, supra} note 52, at 23 (statement of Elizabeth Head, President, League of Women Voters of Rhode Island).

\textsuperscript{139} \textit{See Financing Water Pollution Control, supra} note 32, at 37-38.

\textsuperscript{140} \textit{Id}. at 41.

\textsuperscript{141} \textit{Id}. at 38. For example, one promising alternative is the creation of a state infrastructure bank. \textit{See Water Pollution Control} (BNA) No. 84, at 1 (Dec. 9, 1982). Under this program, all available funds from federal grants, state appropriations, private capital, and proceeds from state bonds would be pooled into a revolving fund. Municipalities would then become eligible to borrow money from this fund to finance local sewage treatment projects. All loans would eventually be repaid, enabling other communities to finance future projects from the same fund. \textit{Id}.

\textsuperscript{142} \textit{See Financing Water Pollution Control, supra} note 32, at 40 (Colorado unsuccessfully attempted to increase state taxes in order to fund a capital improvement bond for water and wastewater projects).

\textsuperscript{143} \textit{Id}. at 41-42 (Missouri and Connecticut propose financing POTW construction through increased bond revenues).

Local attempts to raise revenues through bond issues might be enhanced significantly if the federal government guaranteed these bonds. \textit{See Report on Construction Grants Program-1981, supra} note 14, at 56. Although critics argue that federal guarantees simply create new federal fiscal exposure, the relative financial security of municipal bonds makes this risk minimal. \textit{Id}. Further, defaults might be liquidated through money specifically authorized for the Title II program. \textit{Id}.

\textsuperscript{144} \textit{See Financing Water Pollution Control, supra} note 32, at 40-41 (Texas at-
III. INADEQUACY OF CWA ENFORCEMENT PROVISIONS

A. Introduction

The CWA equips both federal and state agencies with a formidable array of enforcement mechanisms. When a municipal discharger is either unable or unwilling to comply with its NPDES permit limitations, the EPA Administrator or the state may issue an administrative compliance order or refer the POTW to the Justice Department for judicial action. Judicial action may result in civil

145. See 33 U.S.C. § 1342 (1982). Municipal compliance with effluent discharge requirements is effectuated through the National Pollutant Discharge Elimination System (NPDES). Pursuant to section 402(a)(1) of the Act, NPDES permits set forth the precise amount of permissible discharge. Any discharge into navigable waters except as authorized by the terms and conditions of a POTW's permit is prohibited under the Act. Id. § 1342(b). Although the EPA has ultimate authority over NPDES permits, section 402(b) allows states to administer their own NPDES permits. States that wish to administer their own permit programs must submit to the EPA a description of "the program it proposes to establish and administer under State Law . . . ." Id. The EPA must approve the state permit program unless the Administrator determines that the program fails to meet statutory guidelines. Once the EPA approves a state permit program, the EPA must suspend its own issuance of permits in that state. See United States v. Cargill, Inc., 508 F. Supp. 24 (D. Del. 1981).

146. See 33 U.S.C. § 1319(a)(1) (1982). Where a POTW is in violation of its NPDES permit limitation, the EPA will notify both the violator and the state of such finding. Upon receiving notice from the EPA, the state must commence enforcement proceedings. If state action has not been commenced within 30 days of the EPA notice, the EPA may initiate appropriate enforcement action. See also id. § 1342(i). While section 1342(c)(1) suspends federal administration of NPDES permits in states administering their own NPDES program, this suspension does not limit the right to commence federal enforcement actions under section 1319. Id.

Where the state has assumed administration of the NPDES permits, the state is to take the lead in enforcement against noncompliant offenders. See OFFICE OF WATER PROGRAM OPERATIONS, U.S. ENVTL. PROTECTION AGENCY, MUNICIPAL MANAGEMENT SYSTEM 5 (1980) [hereinafter cited as MUNICIPAL MANAGEMENT SYSTEM]. To ensure a coordinated state and federal enforcement response, the Municipal Management System requires state agencies to: (1) establish an integrated database of common grant and permit/compliance information; (2) coordinate information flow with appropriate federal agencies; (3) coordinate initiation of regulatory responses to permit/grant violations; (4) coordinate review and action on permit and grant extension requests; and (5) coordinate development and modification of State Project Priority Lists. Id. at 4.

147. See OFFICE OF WATER PROGRAM OPERATIONS, U.S. ENVTL. PROTECTION AGENCY, NATIONAL MUNICIPAL POLICY AND STRATEGY FOR CONSTRUCTION GRANTS, NPDES PERMITS, AND ENFORCEMENT UNDER THE CLEAN WATER ACT 6 (1979) [hereinafter cited as NATIONAL MUNICIPAL POLICY AND STRATEGY]. The National Municipal Policy and Strategy (NMPS) outlines the appropriate enforcement response mandated where municipalities have violated effluent limitation or NPDES permit restrictions. Under the NMPS, enforcement officials may issue noncompliant municipalities: (1) a permit extension pursuant to section 301(i)(1); (2) an administrative order setting forth a mandatory
penalties,\textsuperscript{148} criminal sanctions,\textsuperscript{149} or injunctive relief.\textsuperscript{150} Noncompliant POTWs may also be blacklisted from contracting with any federal agency.\textsuperscript{151}

Despite this broad arsenal of sanctions, past enforcement efforts against noncompliant dischargers have been inadequate. State and federal officials have instead directed enforcement efforts toward industrial dischargers.\textsuperscript{152} Without an aggressive federal enforcement policy, municipalities lack the incentive to construct and operate compliant POTWs.\textsuperscript{153}

Past enforcement failures are due in part to CWA sanctions which are often inappropriate, leaving officials without effective penalties for noncompliant POTWs. Although municipal offenders are clearly subject to CWA enforcement provisions,\textsuperscript{154} practical and political considerations often militate against the use of judicially imposed civil, injunctive,
and criminal penalties. Without credible sanctions, EPA and state officials are in a poor bargaining position with noncompliant treatment works.\textsuperscript{155}

\section*{B. Inappropriateness of Section 309 Sanctions}

\subsection{Civil Penalties}

Effluent dischargers that fail to adhere to CWA limitations or NPDES permit requirements may be assessed fines pursuant to the Act.\textsuperscript{156} Although the amount of the fine is within the discretion of the courts,\textsuperscript{157} it is generally in accordance with the EPA's "Civil Penalty Policy."\textsuperscript{158} Under this policy, fines are calculated to penalize past conduct and discourage future noncompliance.\textsuperscript{159}

While the EPA's use of civil penalties has successfully curbed nonmunicipal violations,\textsuperscript{160} practical considerations militate against the use of civil penalties for noncompliant POTWs. Instead of punishing responsible public officials, fines are usually paid by innocent community residents in the form of increased taxes.\textsuperscript{161} Penalties also prejudice future

\begin{footnotesize}
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\item \textsuperscript{155} See \textit{Environmental Quality-1980, supra} note 15, at 123.
\item \textsuperscript{156} See 33 U.S.C. § 1319(d) (1982).
\item \textsuperscript{157} \textit{See Ohio v. Dayton Malleable, Inc., 10 ENVT. L. REP. (ENVTL. L. INST.) 20677, No. 78-694 (Ohio Ct. C.P. Montgomery County Oct. 10, 1979)}. Determination of the actual damage award is within the discretion of the court. \textit{See id.} The EPA's civil penalty policies may be of some assistance in guiding the court's decision. These policies, however, are not controlling upon the court. \textit{See id.}
\item \textsuperscript{158} \textit{See EPA CIVIL PENALTY POLICY FOR MAJOR SOURCE VIOLATORS OF CLEAN AIR ACT AND CLEAN WATER ACT} (Apr. 11, 1978), reprinted in \textit{ENV'T REP. (BNA) (Federal Laws)} at 41:1102-1110 (1979) [hereinafter cited as \textit{CIVIL PENALTY POLICY}]. The EPA's civil penalty policy applies to all major and minor violators of CWA water quality standards. \textit{See id.} at 41:1103. Specifically, the policy applies to violations that result from failures to make capital or operation and maintenance expenditures necessary to meet CWA standards. The policy does not apply to penalties for criminal violations or violations of court decrees. \textit{Id.}
\item \textsuperscript{159} \textit{See id.} In calculating a minimum civil penalty, the EPA considers several factors. A base penalty is determined by considering: (1) the sum appropriate to redress the harm or risk to the public health or environment; (2) the sum appropriate to remove the economic benefit gained or to be gained from noncompliance; (3) the sum appropriate as a penalty for the violator's recalcitrance and indifference; and (4) the sum appropriate to recover unusual and extraordinary enforcement costs. \textit{Id.} at 41:1104. From this base penalty, reductions are made for mitigating factors including noncompliance attributable to the federal government and noncompliance due to factors beyond the violator's control. \textit{Id.}
\item \textsuperscript{160} \textit{See supra} note 19 (discussing industrial discharger compliance).
\item \textsuperscript{161} \textit{See Court-Created Receivership Emerging as Remedy For Persistent Noncompliance with Environmental Laws}, 10 ENVT. L. REP. (ENVTL. L. INST.) 10,059, 10,062 (1980) [hereinafter cited as \textit{Court-Created Receivership}].
\end{itemize}
\end{footnotesize}
municipal attempts to achieve compliance by diverting limited funds from local wastewater projects. Unlike penalties assessed against private violators, penalties requiring cities to pay funds to the federal treasury raise federalism issues. Finally, because POTWs are nonprofit public facilities, imposing penalties against them would run counter to the EPA's policy of imposing penalties to make pollution unprofitable.

Since civil fines are counterproductive, the EPA is reluctant to impose fines that economically discourage noncompliance. Unlike industrial dischargers, municipal penalties fail to reflect economic benefits gained from noncompliance. Instead, penalties are based primarily upon the city's ability to pay. Where facility owners can demonstrate that the assessed fines impose an undue financial hardship, the EPA may reduce, postpone, or even excuse the penalty.

2. Injunctive Relief

As with civil penalties, it is often inappropriate for state or federal officials to seek injunctive relief against a municipal sewage treatment facility. Unlike private endeavors, communities are often without alternative facilities which could replace their POTWs. Closing down a major metropolitan wastewater treatment facility or imposing a moratorium on future sewer connections could seriously threaten the community's

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163. See Court-Created Receivership, supra note 161, at 10,062; see also Environmental Quality-1980, supra note 15, at 123 (EPA has difficulty forcing cities to pay fines to the federal treasury).
164. See Civil Penalty Policy, supra note 158, at 41:1109. The policy provides:
   Because state and municipal budgeting and financial decisions are generally concerned with the allocation of tax derived public funds for provision of public services for which there is no fee, service, or user charge collected (unlike utilities), rather than the sale of goods or services, recovering the economic benefit of delayed compliance is somewhat less applicable.
   Id.; see also Reed, supra note 21, at 561-62.
165. See Civil Penalty Policy, supra note 158, at 41:1109 (economic benefit of delayed compliance should be calculated and considered but need not be imposed where inappropriate).
166. See id. When calculating a civil penalty for municipal violators, a minimum civil penalty can only be determined on a case-by-case basis. Id. In evaluating each situation, officials should consider the "size of the facility, and, in a municipal case, the size and resources of the municipality." Id. (emphasis added).
167. See id. at 41:1107; see also Water Pollution Control (BNA) 911:1055 (penalty postponement and forgiveness based upon inability to pay).
168. For example, St. Paul's Metropolitan Sewage Treatment Plant handles the demands of nearly 1.5 million Minneapolis-St. Paul residents. This constitutes nearly 80% of the metropolitan area. See Minnesota Pollution Control Agency News Release (Oct. 28, 1981).
169. See 33 U.S.C. § 1342(h) (1982). Section 402(h) of the CWA permits a moratorium on sewer hookups where the municipality fails to satisfy effluent limitations. Id.; see also National Municipal Policy and Strategy, supra note 147, at 37.

Unfortunately, sewer connection moratoria are not always equitable. While such moratoria coerce compliance from municipalities that wish to grow, sanctions are often
Because injunctive relief is impractical, the EPA seldom attempts to enjoin the operation of wastewater treatment facilities that are violating the effluent limitations set forth in their NPDES permits. The EPA will not enjoin noncomplying facilities if they have plans for replacement. Only noncomplying facilities with no replacement plans will be shut down. Where shutdowns are appropriate, however, the EPA is required to evaluate the POTW’s importance to the community. Such considerations will affect whether or not the shutdown is immediate.

3. Criminal Penalties

Unlike corporate officers, public officials are generally immune to criminal actions brought by water quality enforcement officials, because political considerations militate against jailing elected officials. Consequently, the effective threat of criminal prosecution is unavailable to officials seeking to coerce municipal compliance. Although municipal officers are occasionally prosecuted, criminal actions are generally re-
served for "willful, substantial,"178 and readily provable179 violations where agency authority has been intentionally and deliberately flouted.180 Criminal prosecution of negligent violations is limited to actions tantamount to gross, culpable, or flagrant negligence.181 Because municipal officials face only a remote possibility of prosecution, the threat of such prosecution provides little incentive for compliance.

C. Enforcement Recommendations

1. Administrative Enforcement

Attempts to enforce municipal compliance through litigation are generally counterproductive. As discussed earlier, judicially imposed civil and criminal sanctions are often inappropriate for municipal offenders.182 Litigation deprives officials of the flexibility available when fashioning penalties at the administrative level.183 Officials pursuing judicial relief also run the risk that court sympathies will favor the offending POTW.184 Although CWA requirements are absolute, courts have frequently fashioned relief favorable to the noncompliant municipality.185

Past POTW enforcement actions reflect the EPA's preference for non-judicial proceedings. Formal EPA policies recommend that the majority

179. See id.

Agency officials lack enthusiasm for criminal actions because constitutional protections, such as the right against self-incrimination, and the requirement of proof beyond a reasonable doubt, make conviction difficult. See United States v. Ward, 484 U.S. 242 (1980).


182. See supra notes 156-81 and accompanying text.


184. See supra note 58. Although State Water Control Bd. v. Train reaffirmed the EPA's interpretation of CWA deadlines, the court recognized that the concerns of good faith violators were crucial to the welfare of the community. 559 F.2d 921 (4th Cir. 1977). Train is one of the many decisions in which courts have ruled in favor of dischargers who were clearly in violation of federal pollution laws. See, e.g., Boomer v. Atlantic Cement Co., 26 N.Y.2d 219, 257 N.E.2d 870, 309 N.Y.S.2d 312 (1970).

Litigation poses other hazards. In addition to its cost, the pace of the decisionmaking process is prohibitively slow, especially where the court initially provides a temporary injunction. More importantly, litigation draws attention to procedural technicalities. See generally L. LAKE, ENVIRONMENTAL MEDIATION: THE SEARCH FOR CONSENSUS 20 (1980).

185. See supra notes 165-67.
of noncompliant POTWs be referred to the Justice Department for judicial action.\textsuperscript{186} In practice, however, relatively few cases are referred.\textsuperscript{187} Between 1977 and 1980, only four percent of all cases in which the EPA commenced some form of enforcement action were referred.\textsuperscript{188} A large percentage of these actions was settled out of court.\textsuperscript{189} In the vast majority of cases, the EPA preferred to issue a notice of violation, an administrative order demanding compliance, or an extended schedule for compliance.\textsuperscript{190}

CWA objectives will most likely be effectuated through the continued use of administrative remedies.\textsuperscript{191} Action pursued at this level puts enforcement officials in a stronger bargaining position for a number of reasons. Administrative processing allows greater flexibility in fashioning and enforcing the sanctions most likely to facilitate compliance.\textsuperscript{192} Because these sanctions are initially enforced by administrative officials, less reliance is placed upon courts which may be sympathetic to the noncompliant municipality.\textsuperscript{193} When agency decisions are reviewed, courts frequently defer to the expertise of the relevant agency.\textsuperscript{194}

\textsuperscript{186.} See National Municipal Policy and Strategy, \textit{supra} note 147, at 6. Pursuant to this policy, the EPA will only grant extensions to POTWs that will definitely receive federal assistance in time to meet the 1988 deadline. \textit{Id.} at 7. For categories 1 through 3, the EPA will deny requests for extensions. Instead, the EPA will either issue an Administrative Order demanding immediate compliance pursuant to section 309(a)(5)(A) or refer the matter to the Department of Justice for legal action. \textit{Id.} For categories 4 through 6, the EPA advises enforcement officials to refer the matter for judicial action. \textit{Id.}

\textsuperscript{187.} See Environmental Quality-1981, \textit{supra} note 7, at 82. Although the EPA instigated 1672 enforcement actions against municipal offenders between 1977 and 1980, only 67 of these were referred to the Department of Justice for litigation. \textit{Id.} This amounts to only 4\% of all enforcement actions.

\textsuperscript{188.} \textit{Id.}

\textsuperscript{189.} \textit{Id.}

\textsuperscript{190.} \textit{Id.} Between 1977 and 1980, the EPA issued 344 notices of violation. These constituted 21\% of all municipal enforcement actions. In the same period of time, the EPA issued 1261 Administrative Orders which constituted 75\% of all municipal enforcement actions. \textit{Id.}

\textsuperscript{191.} See Quarles, \textit{supra} note 183, at 16.

\textsuperscript{192.} \textit{Id.; see also} Macbeth, \textit{The Need for Flexibility and Variety in Environmental Enforcement, in} \textit{Environmental Enforcement} 13 (A.B.A. Standing Comm. on Env'tl. L. 1978).

\textsuperscript{193.} See \textit{supra} note 185 and accompanying text.

\textsuperscript{194.} See Bazelon, \textit{Coping with Technology Through The Legal Process,} \textit{62 Cornell L. Rev.} 817 (1977). The role of the judiciary is not to choose between complex and confusing alternatives. Rather, the role of the courts is to review the decisionmaking process, insuring that all procedural safeguards are complied with. Once all have had a right to participate, the choice of two competing alternatives should be made by the agency with the requisite expertise. \textit{Id.} at 823; \textit{see also} Natural Resources Defense Council v. EPA, 656 F.2d 768, 774 (D.C. Cir. 1981) (court may set aside agency decision where agency action was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law).
2. Judicial Enforcement

While administrative enforcement is preferable, many violators perceive agency action as an opportunity to delay compliance and escape judicial sanctions. For such POTWs, compliance must be coerced with the threat of litigation. Only judicial action demonstrates the gravity of federal efforts, motivating genuine local attempts to satisfy existing water quality standards.

Successful judicial enforcement, however, depends upon utilizing sanctions likely to spur intransigent municipalities. As noted earlier, present economic and political considerations militate against the use of civil and criminal penalties, fostering a perception of municipal immunity. Judicial action must impose credible sanctions that are adaptable to municipalities, thereby compelling POTW compliance.

One effective alternative to administrative action is the EPA's use of judicially enforced consent decrees. Under the terms of such a decree, the EPA and the noncompliant POTW may agree to a mandatory schedule of compliance and use of private engineering to correct past deficiencies. Failure to abide by the decree's provisions will place the offender in contempt of court.

The Rhode Island Federal District Court case of United States v. City of Providence illustrates the effectiveness of judicial enforcement of consent decrees. In Providence, the city and the EPA entered into a consent decree scheduling the city wastewater treatment plant's compliance with NPDES requirements. When the POTW failed to comply with the terms of the decree, city officials requested that the court either annul or


In light of past successes, the EPA views judicially enforced consent decrees as an effective means of facilitating compliance. See Hearings on the Construction Grants Program, supra note 2, at 1713 (statement of Anne M. Gorsuch, Administrator, U.S. Environmental Protection Agency).


197. See id. at 609-11. Unlike private contracts or stipulation agreements, consent decrees are court sanctioned. Consequently, unless both parties consent, courts will not excuse compliance where the parties both understood and assented to the terms of the decree. See Clinchfield Stone Co. v. Stone, 36 Tenn. App. 252, 254 S.W.2d 8 (1952).

Consent decrees may be modified, however, where subsequent statutory changes have made previously negotiated compliance schedules inadequate or oppressive. See 33 Pub. L. No. 97-117, 95 Stat. 1633 (1981). Pursuant to the CWA, parties to a federal consent decree establishing a deadline, schedule, or timetable for the construction of POTWs may reexamine the provisions of such consent decrees where mandated by equity. Id. But see NRDC v. Gorsuch, 12 ENVTL. L. REP. (ENVTL. L. INST.) 20371 (D.D.C. 1982) (1977 CWA amendments do not excuse compliance with a previously negotiated 1976 consent decree).


199. See id. at 605.
modify the decree. The district court rejected the municipality's request, ruling that the court's authority to modify a previously bargained-for consent decree was narrowly limited. The court held that to be excused from compliance, a defendant must demonstrate that compelling or extraordinary circumstances have arisen that render the decree unreasonably oppressive. Although the defendant municipality would be better off if the decree were voided, it did not suffer hardship so extreme and unexpected as to warrant nonperformance. Accordingly, failure to adhere to the decree would place the municipality in contempt of court.

Consent decrees have unique advantages. They are negotiated at the administrative level, thereby incurring the benefits of agency expertise and flexibility as well as the weight of judicial enforcement. Consent decrees are specifically binding on city officers, increasing the incentive to adhere to the agreement’s terms.

Another promising judicial sanction finding increasing use against intransigent violators is the common law remedy of receivership. Where injunctive relief or civil penalties are either inappropriate or inadequate, courts may appoint a single administrator with virtually unrestrained authority to manage the violating facility until it complies with environmental standards. This broad authority derives from the broad range of equitable powers available to the court to enforce and effectuate its

200. See id.
201. See id. at 609.
202. See id.
203. Id. (citing United States v. Swift & Co., 286 U.S. 106 (1932)). The Swift Court stated the current rule:

No doubt the defendants will be better off if the injunction is relaxed, but they are not suffering hardship so extreme and unexpected as to justify us in saying that they are the victims of oppression. Nothing less than a clear showing of grievous wrong evoked by new and unforeseen conditions should lead us to change what was decreed after years of litigation with the consent of all concerned.

Id. at 119.
204. See 492 F. Supp. at 609-11.
205. See supra notes 188-90 and accompanying text.
206. See 492 F. Supp. at 605.
207. See Court-Created Receivership, supra note 161, at 10,059. Outside of the environmental arena, receivership has enjoyed significant success where ordinary attempts to gain municipal compliance have been ineffective. See, e.g., Morgan v. McDonough, 540 F.2d 527 (1st Cir. 1976) (receiver appointed to implement desegregation program in Boston school district); Newman v. Alabama, 466 F. Supp. 628 (N.D. Ala. 1979) (temporary receiver appointed to operate state prison system where conventional attempts to alleviate constitutional violations were unsuccessful).

208. See Court-Created Receivership, supra note 161, at 10,059. The receiver’s authority includes the power to borrow funds and hire consultants, as well as the “full power to manage, control, and deal with all items, assets, properties, contracts and other matters incident to his responsibilities.” See Town of Greenwich v. Connecticut Dept. of Transp., 10 ENVTL. L. REP. (ENVTL. L. INST.) 20178 (D. Conn. 1980).
Although the EPA has historically viewed receivership as an available enforcement tool, receivership was only recently used in environmental litigation in United States v. City of Detroit. In Detroit, the defendant POTW repeatedly failed to adhere to NPDES permit requirements and judicial enforcement orders. Rather than pursuing conventional sanctions, the court placed the plant under the direct control of a receiver who was given full authority to operate the facility until compliance was achieved. Explaining its departure from conventional enforcement mechanisms, the court stated that:

Where [t]he more usual remedies—contempt proceedings and further injunctions—[are] plainly not very promising as they [invite] further 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 a receivership, to get the job done.

Court-imposed receivership offers unique advantages in its adaptability to municipal offenders and coercive impact. Unlike monetary or injunctive sanctions, receivership does not prejudice community interests. Because receivership is a credible sanction, enforcement officials enjoy a more effective bargaining position. Municipalities that previously viewed themselves as immune from enforcement proceedings are now on notice that effective municipal enforcement mechanisms exist and will be utilized where other remedies are ineffective.

**IV. CONCLUSION**

Few will dispute that past municipal performance under the CWA has been disappointing. Unlike their industrial counterparts, public dischargers have distinguished themselves in their consistent inability to comply with federally imposed water quality standards. Responsibility

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210. See NATIONAL MUNICIPAL POLICY AND STRATEGY, supra note 147, at 37 (judicial referral can result in imposition of a special master); CIVIL PENALTY POLICY, supra note 158, at 41:1109 (EPA may seek appointment of a special master to ensure municipality diligently undertakes all work necessary to satisfy compliance schedule).
212. Id. In an initial attempt to obtain POTW compliance, the EPA entered into a consent agreement with the city which required the city to adhere to rigid discharge requirements and to secure financing to construct plant improvements. Soon after the decree was negotiated, however, the plant was in violation of effluent requirements set forth in the decree. Id.
213. See id. at 520.
214. Id. (quoting Morgan v. McDonough, 540 F.2d 527, 533 (1st Cir. 1976)).
215. See COURT-CREATED RECEIVERSHIP, supra note 161, at 10,059.
216. Id. at 10,062.
217. Id.
218. Id.
for past failures rests at all levels of government, ranging from federal officials unable to fund and administrate Title II programs adequately, to local officials unable to design, construct, and operate cost-efficient treatment facilities. Even with a determined commitment by both federal and state authorities, nationwide municipal compliance with the CWA’s original mandate remains a distant goal.

Yet in spite of past problems, CWA regulation of POTWs has not been a total failure. Since 1972, over 20,000 project grants have been awarded. Almost 10,000 of these projects have been completed with 3000 POTWs on-line reducing municipal water pollution. While many dischargers have failed to attain secondary treatment, removal of primary pollutants has increased by sixty-five percent. Indeed, disappointment with past efforts is in part unjustified, since expectations were initially premised upon unrealistic deadlines.

In light of past triumphs and defeats, future efforts must concentrate upon refining the existing municipal program. The amendments enacted in 1977 and 1981 acknowledge this by reaffirming original goals and seeking compliance by fine tuning the original Act. While several initial deficiencies have been addressed, much remains to be done. Future legislation must promote better administration, design, construction, O&M, and enforcement of POTWs. Only then will our nation achieve water quality standards consistent with CWA goals and public expectations.


220. See id.

221. See id. at 1546 (statement of Merilyn B. Reeves, Natural Resources Director, League of Women Voters of the United States) (since 1973, removal of BOD and total suspended solids has increased by 65%).

222. See REPORT ON CONSTRUCTION GRANTS PROGRAM-1980, supra note 20, at 3. As observed in the Report: “The reasons for the relatively lackluster performance of the construction grants program are many; chief among these are that the cleanup task has consistently been underestimated and the ability of the Federal Government to administer such a program has been grossly overestimated.” Id.

223. See 13 WEEKLY COMP. OF PRES. DOC. 1933 (Jan. 2, 1978). Amendments enacted in 1977 were viewed by President Carter as nothing more than a “midcourse correction,” necessary in light of unanticipated problems in the original Act. All initial goals were still embraced. Id.

224. See, e.g., American Attitudes Toward Clean Water: Hearing Before the Subcomm. on Environmental Pollution of the Comm. on Environment and Public Works, 97th Cong., 2d Sess. (1982). A recent Harris Survey explored the myth that citizens give strong environmental protection secondary priority to other public concerns such as unemployment. Id. at 10. In reality, citizens do not feel that they must opt for either economic growth or environmental cleanup. Id. at 11. Indeed, 89% indicated that such a choice is unnecessary. Id.

Additionally, 88% perceive water pollution attributable to sewage as a serious problem in America. Id. at 12. Fifty-nine percent feel that current standards are not protective enough. Id. at 14. While 94% wish to keep water quality standards at least as strict, 60% desire that they be stricter. Id. at 14-15. More importantly, 70% indicated that they were willing to pay more for improved water quality. Id. at 18.