The Clean Water Act's Section 404 Permit Program Enters Its Adolescence: An Institutional and Programmatic Perspective

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I
INTRODUCTION

Born of confusion, nurtured by controversy, nearly scuttled before it reached maturity, section 404 of the Clean Water Act is today an integral component in the struggle to restore and maintain the integrity of the nation's waters. Section 404 is in many respects a unique provision of the Clean Water Act. Unlike most other provisions of the Act, which are aimed at controlling discharges and runoff of liquid effluent, section 404 regulates the addition of solid materials into waterbodies. For this reason, it does not rely on the capital intensive "end of the pipe" treatment techniques that have characterized traditional wastewater pollution control. On the contrary, because solid discharges can result in the destruction of aquatic areas, the 404 permit program seeks to minimize adverse impacts by prohibiting discharges affecting sensitive ecosystems and by requiring the adoption of mitigating management practices for the discharges it does allow. Section 404 is also unusual in that its authority to regulate discharges of dredged or fill material gives the permit program a broad mandate to control a wide variety of activities affecting water quality, including deposits of material excavated from lake, river, and stream beds (dredged material).
and upland soil and structures placed in waters (fill material).  

Created by the 1972 Federal Water Pollution Control Act Amendments, the section 404 permit program was for some time clouded by uncertainty. Both heralded as a wetlands protection measure and attacked as an unwarranted federal intrusion into the land use affairs of states and localities, section 404 has from its inception been the subject of administrative, legislative, and judicial controversy. As a result, the first five years of the program were largely devoted to defining and debating its scope of authority rather than ensuring its effective implementation.

Initially given a restrictive jurisdictional interpretation by the federal agency charged with issuing permits and largely ignored by the agency vested with program oversight, section 404's broad authority to control discharges of solid materials into the nation's waters was not established until 1975, and then only as a result of judicial intervention. The scope of the 404 program subsequently became a political football in Congress during the 1975-77 legislative sessions, as those who opposed expansive 404 permit jurisdiction nearly succeeded in severely limiting the program. Not until the enactment of the 1977 Clean Water Act Amendments, when Congress agreed to a compromise preserving a broad section 404 jurisdiction, was the legislative cloud blanketing the program finally lifted.

The 1977 Amendments brought an end to section 404's stormy youth, and began an adolescence in which the focus of attention shifted to the implementation of a comprehensive and effective program. In an era in which government programs are increasingly vulnerable to charges of overregulation and bureaucratic red tape, section 404 should be implemented in a manner calculated to avoid imposing burdensome requirements on activities having minimal water quality impacts and to maximize the use of scarce administrative resources. By focusing on the functional operation of the permit program, this Article explores the mechanisms by which the 404 program can most efficiently achieve its water quality goals. Concentrating its attention on transforming section 404's legislative intent into administrative practice, the Article assesses the roles which federal agencies, the states, and the public can play in implementing an effective regulatory program.

The 404 permit program regulates the discharge of dredged and fill material. Dredged material is largely a product of the maintenance

3. Id. § 323.2(m)-(n).
5. See notes 25-26 infra and accompanying text.
6. See notes 29-31 infra and accompanying text.
and improvement of navigation in the nation's rivers and harbors. When this material is discharged into open waters, dredged spoils can seriously affect water quality since they often contain toxic sediments. Even when dredged sediments are free of toxic pollutants, devastating impacts upon aquatic ecosystems can result where spoils are used to replace wetlands and other shallow water areas with dry (i.e., developable) land. Regulating the placement of the spoil from dredging operations thus gives the 404 program an important role in ensuring that navigation-related activities only minimally affect water quality.

Controlling discharges of fill material, unlike dredged material, involves regulating a number of different kinds of activities. Since fills embrace the placement of any structures or impoundments in water, 404 permits are required for such diverse activities as the discharge of dirt, sand, or rock, the construction of dams and dikes, the erection of seawalls and breakwaters, and even the placement of underwater pipes and cables. It was largely this broad authority to control discharges of fill material that prompted the political furor over the section 404 program. When combined with its expansive jurisdictional coverage, extending to virtually all waterbodies, numerous earth-moving and drainage activities, such as those associated with farming, ranching, and forestry, were potentially subject to 404 permit requirements. Because of the program's close relationship with land use practices adversely affecting water quality, critics contended that it represented an unprecedented federal presence in land use matters.

The link between land use and water quality is nowhere more evident than in wetlands protection. For years wetlands were filled or drained, usually to accommodate real estate or industrial developments. In recent years growing public awareness of the importance of wetlands in maintaining water quality and the vitality of aquatic eco-

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8. "Wetlands" are defined in the regulations implementing section 404 as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." 33 C.F.R. § 323.2(c) (1979).

9. 33 C.F.R. §§ 323.2(n), .3 (1979).

systems made the filling of these critical environmental areas less palatable. Nevertheless, opponents of the 404 program have consistently maintained that its regulation of wetland fills serves to displace state and local land use controls. These assertions overlook the fact that federal regulation of wetland fills, while having undeniable land use effects, is primarily grounded on a concern for water quality. Furthermore, because the program seeks to regulate a large number of discharges, many of them from small sources, effective implementation of the permit program depends upon the involvement of states and localities. Consequently, rather than displace local controls, the 404 program provides state and local governments with important operational functions.

Although the formulation of effective federal-state relations is a crucial component in ensuring the long-range vitality of the 404 program, the development of workable institutional relations among federal agencies is of more immediate concern. Unlike most other federal environmental programs, where a single agency is responsible for policy implementation, the 404 permit program is grounded on a complex


12. See, e.g., *Hearings on Section 404 of the Federal Water Pollution Control Act Amendments Before the Senate Public Works Committee*, 94th Cong., 2d. Sess. 4, at 11-14 (1976) (statement of Warren Rich on behalf of the National Governor's Conference) [hereinafter cited as *Senate 404 Hearings*].

The inability or unwillingness of states and localities to effectively control wetland fills, however, has been a major factor in the destruction of nearly one-half of the nation's wetland resources. *Id.* at 42 (statement of Russell Train, Administrator, U.S. Environmental Protection Agency); *Id.* at 392 (statement of Louis Clapper, National Wildlife Federation).


14. See part VI infra.
web of federal agency interrelationships. Four federal agencies—the Environmental Protection Agency, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service—have significant program responsibilities. This arrangement provides a considerable degree of pluralism in the operation of the program by subjecting the myriad activities it regulates to the special expertise of the different agencies. But it also requires agencies to establish procedures and mechanisms to ensure that opportunities to participate in the permit process are maximized and that permit decisions are reached expeditiously. This Article, therefore, devotes considerable attention to the responsibilities of federal agencies and suggests how they can most effectively discharge their duties.

Part II of the Article explores the scope of the 404 program and its statutory exemptions, including an examination of the program's relationship to its antecedent, section 10 of the Rivers and Harbors Act of 1899. Part III describes the process of issuing 404 permits, while part IV discusses the interagency relationships necessary to the successful operation of the 404 program. Part V outlines the relationship between the section 404 program and the Clean Water Act's National Pollution Discharge Elimination System (NPDES) and makes a number of suggestions designed to maximize the effectiveness of both permit programs. Part VI explores the role of the states in the 404 program, while part VII discusses how to improve coordination between the 404 program and state land and water use controls. The Article concludes that successful operation of the 404 program will require continued public scrutiny and greater cooperation among federal agencies and between the federal government and the states.

II
THE SCOPE OF THE 404 PROGRAM

Unlike most other environmental programs created during the past decade, the 404 program has roots in nineteenth century legislation. This history has significantly shaped the program's development while providing a backdrop for discussion of its scope. This part first discusses the relationship between the 404 program and its antecedent, section 10 of the Rivers and Harbors Act of 1899. It then examines statutory exemptions that define and limit the reach of section 404.

A. The 404 Program and Section 10 of the Rivers and Harbors Act

The 404 program is similar to a permit program implemented pursuant to section 10 of the Rivers and Harbors Act of 1899. Both pro-

16. Id. In addition to the provisions of § 10, the 1899 law prohibited the discharge of
grams require permits from the U.S. Army Corps of Engineers for discharges of dredged or fill material in traditionally defined navigable waters. The procedures by which permits are processed are basically the same, and the Corps' "public interest review" is an essential factor in evaluating applications for both types of permits. Where both permits are required, the similarity in the programs allows the Corps to consolidate permit processing procedures.

The similarity between the section 404 permit program and the section 10 program is not accidental. By including section 404 in the 1972 Amendments, Congress allowed the Corps to continue its important role in issuing permits for discharge of dredged or fill material. Without section 404, section 402 of the Water Pollution Control Act Amendments would have effectively usurped the Corps' section 10 authority to regulate the discharge of dredged and fill material by requiring an NPDES permit from EPA for such activities.

Although the section 404 and section 10 programs are similar, there are several distinctions between them. Most important, the 404 program covers a broader geographic scope than the section 10 program. Section 10 is limited to waters that fit within traditional definitions of navigable waters under § 13 and continues to regulate the construction of dams and dikes under § 9. Prior to the enactment of the 1972 Federal Water Pollution Control Act Amendments, § 13 formed the basis of a nationwide permit system controlling wastewater discharges. It was, however, replaced by the National Pollutant Discharge Elimination System (NPDES) created by § 402 of the 1972 Amendments. Clean Water Act, § 402(a)(5), 33 U.S.C. § 1342(a)(5) (Supp. 1 1977). For an overview of § 13, see W. RODGERS, ENVIRONMENTAL LAW § 4.5 (1977). In contrast to § 13, § 9 retains its role as the major federal control over dams and dikes. For a recent court decision holding that only Congress, not the Corps of Engineers, may authorize dikes in interstate waters under § 9, see Hart and Miller Islands Area Environmental Group, Inc. v. Corps of Engineers, 459 F. Supp. 279, 9 ELR 20032 (D. Md. 1978).

18. Id. § 320.4(a). For a more complete discussion of the Corps' public interest review see notes 116-21 infra and accompanying text.
19. Section 511(a) of the Clean Water Act makes § 404 permit criteria conclusive as to effects on water quality where joint permits are issued. 33 U.S.C. § 1371(a) (1976).
20. See 117 CONG. REC. 38,852-57 (1971), reprinted in LIBRARY OF CONGRESS, SER. NO. 93-1, A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, at 1386-93 (1973) [hereinafter cited as 1972 LEGISLATIVE HISTORY]. Section 404, which originated in the House, was accepted reluctantly in conference by the Senate only after EPA was given a substantial oversight role in the operation of the Corps' permit program, including authority to establish permit criteria, bring enforcement actions, and veto permits. See S. REP. NO. 414, 92d Cong., 1st Sess. 84 (1971) (Senate's initial rejection), reprinted in 1972 LEGISLATIVE HISTORY, supra, at 1502; 118 CONG. REC. 33,699 (1972) (Senator Muskie's explanation of § 404 during the Senate debate on the Conference Report), reprinted in 1972 LEGISLATIVE HISTORY, supra, at 177-78.
21. Section 402 provides that the Administrator of EPA may issue a permit for the discharge of "any pollutant, or combination of pollutants." Clean Water Act § 402(a)(1), 33 U.S.C. § 1342(a)(1) (1976). This provision specifically makes an exception for discharges regulated by § 404. Id.
tions of navigability.\textsuperscript{22} During section 404's early years, the Corps refused to expand its 404 permit jurisdiction beyond waters regulated by the Corps under its section 10 permit authority.\textsuperscript{23} This restrictive reading denied federal control over discharges of dredged or fill material in numerous bodies of water. For example, although a permit was required for a discharge of dredged spoil into a navigable water, the same discharge into a non-navigable water or a tributary went unregulated. Similarly, because the Corps required no 404 permits for discharges into wetlands situated above the mean high-water mark, these wetlands could be filled with impunity.\textsuperscript{24}

In 1975, as a result of a suit brought by the Natural Resources Defense Council and the National Wildlife Federation, the District Court for the District of Columbia ordered the Corps to expand the coverage of the 404 program to include all waters that the Federal Government could constitutionally regulate under the commerce clause.\textsuperscript{25}

\textsuperscript{22} \textit{Id} \textsection 403, 33 U.S.C. \textsection 1343 (1976). Federal courts have interpreted navigable waters to include all waters used to transport interstate or foreign commerce, The Daniel Ball, 77 U.S. (10 Wall.) 557 (1870); used in the past to transport interstate or foreign commerce, Economy Light and Power Co. v. United States, 256 U.S. 113 (1921); susceptible to improvement to transport interstate or foreign commerce, United States v. Appalachian Power Co., 311 U.S. 377 (1940); and subject to the ebb and flow of the tide, United States v. Moretti, 478 F.2d 418 (5th Cir. 1973). In these waters, \textsection 10 permits are required for activities below the ordinary high-water mark in fresh waters and the mean high-water mark in tidal waters. Leslie Salt Co. v. Froehlke, 578 F.2d 742, 11 ERC 1585 (9th Cir. 1978).

Court decisions have expanded \textsection 10 jurisdiction to include activities outside navigable waters that have an effect on navigable capacity. See United States v. Sexton Cove Estates, Inc., 526 F.2d 1293, 8 ERC 1657 (5th Cir. 1976); Weizs"mann v. District Engineer, U.S. Army Corps of Engineers, 526 F.2d 1302, 8 ERC 1663 (5th Cir. 1976); United States v. Moretti (Moretti II), 526 F.2d 1306 (5th Cir. 1976). See also United States v. Ferma Paving Co., 332 F.2d 754 (2d Cir. 1964); Sierra Club v. Morton, 400 F. Supp. 610, 7 ERC 2153 (N.D. Cal. 1975). This expansion, however, is a recent development. Until 1970 the Corps exempted from permit requirements numerous activities in navigable waters shoreward of harbor lines established under \textsection 11 of the Rivers and Harbors Act, 33 U.S.C. \textsection 404 (1976). See United States v. Stoeco Homes, Inc., 498 F.2d 597, 602-03, 6 ERC 1757, 1760 (3rd Cir. 1974). The Corps' current regulations, however, no longer employ harbor lines as a means to exempt activities from permit requirements. See 33 C.F.R. \textsection 322.3(a) (1979).


\textsuperscript{23} \textit{Senate 404 Hearings}, supra note 12, at 47, 54 (statement of Victor Vesey). Thus, the enactment of \textsection 404 did not materially change the Corps' interpretation of its permit responsibilities under the 1899 law.

\textsuperscript{24} See note 22 supra.

\textsuperscript{25} Natural Resources Defense Council, Inc. v. Callaway, 392 F. Supp. 685, 7 ERC 1784 (D.D.C. 1975). This interpretation is justifiable even though \textsection 404 uses the term "navigable waters" in defining its jurisdiction. Section 502(7) of the 1972 Amendments defined
By requiring 404 permits for discharges into waters having no nexus to navigation, the court's ruling transformed the 404 program from a convenient exemption from EPA's section 402 permit requirements into a vehicle for wetlands protection.26

The expanded jurisdiction of the 404 program has survived subsequent legislative attack. In proposing regulations to implement the court's order,27 the Corps issued a now infamous press release stating that expanded 404 jurisdiction could result in permit requirements for ranchers enlarging stock ponds or farmers deepening irrigation ditches or plowing fields.28 This press release created a furor, precipitating the introduction of a bill in the House of Representatives that would have restricted the scope of the 404 program to waters subject to section 10 "navigable waters" as "the waters of the United States, including the territorial seas." 33 U.S.C. § 1362(7) (1976). The Conference Report explained that by this definition Congress intended to assert federal jurisdiction over those waters that could be regulated under the commerce clause power: "[t]he conferees fully intend that the term navigable waters be given the broadest constitutional interpretation unencumbered by agency determinations which have been made or may be made for administrative purposes." S. REP. NO. 1236, 92d Cong., 2d Sess. 144 (1972), reprinted in 1972 LEGISLATIVE HISTORY, supra note 20, at 327.


27. Responding to the court's order, the Corps promulgated interim final regulations on July 25, 1975, 40 Fed. Reg. 31,320, and final regulations on July 19, 1977, 33 C.F.R. §§ 323.3(a), .4-1 (1978). The regulations adopted a "phased approach" to expanding 404 permit jurisdiction, asserting regulatory control over all waters of the United States in three stages. Id. Prior to Callaway, other courts had ruled that 404 permits were required for particular discharges of fill material even though the affected waterbody had no nexus to navigation, the most notable decision being United States v. Holland, 373 F. Supp. 665, 6 ERC 1388 (M.D. Fla. 1974). Other decisions are collected in the preamble to the Corps' 404 regulations. 42 Fed. Reg. 37,124 (1977). For a recent appellate court decision upholding assertion of 404 jurisdiction over a privately owned swamp adjacent to an intrastate lake, see U.S. v. Byrd, No. 78-2459 (7th Cir. Oct. 15, 1979).

Although the House passed this bill in the 94th Congress, and a similar one in the 95th Congress, the Senate refused to restrict the 404 program's jurisdiction.

Although its geographic scope is more limited, the section 10 permit program regulates activities more comprehensively than the 404 program. Section 10 permits are required for any work performed on structures sited in navigable waters. Thus, section 10 permits are required for dredging activities that excavate material, even though no material is deposited in navigable waters. In contrast, section 404 permit requirements apply only to point source discharges of dredged or fill material. A 404 permit is not required if the spoil from a dredging operation is deposited upland, and the dredging activity does not spill material into water. Similarly, because 404 permit requirements apply only to discharges, where a wetland is drained without a deposit of fill material, a 404 permit is not required. This limitation weakens the program's potential to comprehensively protect waterbodies.

The distinction between the section 10 and 404 programs extends also to their criteria for issuing permits. Although both programs require that proposed activities satisfy the Corps' "public interest review" criteria, they differ in the manner in which they evaluate these criteria.

31. The second time, in 1977, the House and Senate struck a compromise maintaining the broad jurisdictional scope of the program, while providing categorical exemptions from permit requirements for certain activities and also allowing qualified states the opportunity to operate the permit program in waters not traditionally defined as navigable. For a discussion of these provisions, see text accompanying notes 42-84 & 240-74 infra. A detailed analysis of attempts in the 94th Congress to restrict § 404 jurisdiction is provided in Caplin, Is Congress Protecting Our Water? The Controversy Over Section 404, Federal Water Pollution Control Act Amendments of 1972, 31 U. MIAMI L. REV. 445 (1977).
34. It is difficult, however, to dredge without some discharge at the site of dredging. At the least, the dredger should have the burden of demonstrating that there will be no discharge.
35. Thus, a 404 permit is not required for activities that alter upland drainage patterns and block runoff into wetlands because there is no discharge of dredged or fill material. The construction of a drainage ditch or a levee in a wetland, however, constitutes a deposit of fill material and thus requires a 404 permit. United States v. Fleming Plantations, Nos. 78-2110, 78-3111, 12 ERC 1705 (E.D. La. Dec. 22, 1978). Similarly, clearing a wetland's vegetative cover is a discharge of dredged material necessitating 404 authorization. Avoyelles Sportmen's League v. Alexander, 473 F. Supp. 525 (W.D. La. 1979).
36. The limitations on the activities subject to 404 permit requirements underscore the continuing importance of state wetlands protection programs. See J. Kusler, Strengthening State Wetland Regulation (1978) (prepared for the U.S. Fish and Wildlife Service). See also text accompanying notes 269-72 infra.
criteria, the 404 program also requires compliance with a set of environmental guidelines promulgated by EPA in conjunction with the Corps under section 404(b) of the Clean Water Act. Properly applied, the guidelines should make the 404 program more environmentally protective than if the "public interest review" balancing were the only criterion for issuing a permit. In addition, EPA has the authority to veto 404 permits and is principally responsible for controlling discharges made without a required permit. The section 10 program, on the other hand, operates unencumbered by EPA guidelines or oversight.

B. Exemptions from the 404 Program

Although the 404 program withstood a congressional attempt to limit its geographic scope, it did not survive unscathed. The 1977 Amendments, while preserving section 404's broad geographic coverage, created categorical exemptions for two types of activities: those having minor impacts upon the nation's waters, including wetlands; and certain federally authorized projects.

1. Exemptions for Minor Impacts

Section 404(f) of the Clean Water Act contains six categories of activities that have minor effects on water quality and are therefore exempted from 404 permit requirements. These activities are not ex-
emptied from permit requirements, however, if they would violate toxic effluent standards and prohibitions established under section 307 of the Act or are new uses that impair the flow or circulation of waters or reduce their reach. Some of the exemptions contain ambiguities that are likely to become the subject of litigation before the exemptions can be effectively implemented.

One of the most perplexing problems involved in implementing the 404 program is interpreting the scope of activities that qualify for the first exemption, i.e., normal farming, silviculture, and ranching activities. Interpreted literally, the statute could exempt all farming, forestry, and ranching practices considered "normal," even if such

state 404 program. For a discussion of state 404 programs, see text accompanying notes 240-74 infra.

Best management practices (BMP's) developed pursuant to exemption 5 must minimize detrimental impacts on water bodies. Id. § 404(f)(1)(E), 33 U.S.C. § 1344(f)(1)(E) (Supp. I 1977). See note 276 infra for a definition of BMP's. EPA's state 404 program approval regulations require states to describe specifically the BMP's they intend to employ. 44 Fed. Reg. 32,919 (1979) (to be codified in 40 C.F.R. § 123.4(g)). In addition, pursuant to the agency's recently proposed consolidated permit regulations, see note 53 infra, EPA has specified "baseline" BMP's that all states must follow in formulating more detailed BMP's. 44 Fed. Reg. 34,314, 34,318 (1979). Included in the proposed baseline BMP's is a prohibition against logging in streams, a limitation of road construction to the "minimum feasible number, width, and total length," and requirements that roads be located "sufficiently far" from streams to avoid significant increases in runoff and that road fills be culverted to prevent restrictions of high flows. Id. Although the proposed regulations would be applicable only to state 404 programs, the permit exemption in § 404(f)(1)(E), 33 U.S.C. § 1344(f)(1)(E) (Supp. I 1977) extends also to federally issued 404 permits. In light of the Attorney General's conclusion that EPA has the ultimate authority to interpret the 404(f) exemptions, Letter from Benjamin Civiletti, U.S. Attorney General to Clifford Alexander, U.S. Secretary of the Army (Sept. 5, 1979) [hereinafter cited as Letter of the Attorney General], summarized in [1979] 10 ENVIR. REP. (BNA) 1278, the EPA's proposals should lead to a revision of the Corps' existing nationwide permit for minor road fills. See 33 C.F.R. § 323.4-3(a)(3) (1979). For a discussion of the Letter of the Attorney General, see text accompanying notes 63-65 infra. For a discussion of general permits, see note 103 infra.


Toxic effluent standards, however, have been established for only six pollutants, and none of these standards have been applied to dredged material. 40 C.F.R. § 129 (1978). Section 307(a)(5) of the Act requires consultation with the Secretary of the Army before these standards and prohibitions become applicable to dredged material. 33 U.S.C. § 1317(a)(5) (1976).


46. Except [where it would violate the toxic or new use caveats], the discharge of dredged or fill material—(a) from normal farming, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices . . . is not prohibited by or otherwise subject to regulation under [section 404].

practices involved a point source discharge of fill material into water.\(^{47}\) This interpretation is supported by the statute, which uses the term "discharge" to describe the scope of the exemptions.\(^{48}\) Such an interpretation, however, would encourage wetland fills, since farming activities, for example, would be subject to permit requirements only if they involved point source discharges into water that brought an aquatic area "into a use to which it was not previously subject."\(^ {49}\) Farmlands can be extensively altered and yet not undergo a change in use. For example, if plowing soil into wetlands to enhance crop yield or to change from wet to dry farming can be characterized as a "normal" farming practice, a permit may not be required because the area is still being farmed. Once filled, of course, nothing would prevent the farmer from selling the converted wetlands for development unrelated to farming.\(^ {50}\)

On the other hand, the first exemption may mean that "normal" farming, silviculture, and ranching activities are those that do not involve point source discharges and are therefore exempt from the 404 program.\(^ {51}\) This interpretation would minimize the impact of farming, forestry, and ranching activities on wetlands and has widespread support throughout the legislative history of the 1977 Amendments.\(^ {52}\) It

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47. For the distinction between point and nonpoint source pollution, see note 33 supra.
48. "Discharge" is defined by the Act as an addition of any pollutant to navigable waters from a point source. See note 33 supra.
50. The same scenario could occur with forestry practices that drain wetlands to convert hardwood swamps to upland pine stands. Although perhaps not a change in use, the effect would be the same—destruction of wetlands.
51. Although this interpretation may appear to conflict with statutory language that exempts "discharges," the exemption clause includes at least one activity that clearly involves only nonpoint source pollution—upland water and soil conservation practices. This exemption indicates that "discharge" is used in § 404(f)(1), 33 U.S.C. § 1344(f)(1) (Supp. I 1977), in its non-technical sense to include other than point sources and supports the view that all of the activities listed in § 404(f)(1)(A) are nonpoint sources. In light of the Clean Water Act's goal of eliminating discharges, Clean Water Act, § 101(a)(1), 33 U.S.C. § 1251(a)(1) (1976), the scope of activities exempted from permit requirements should be narrowly construed.

In this case, the committee reports also support a narrow interpretation of the first exemption. They indicate that Congress was attempting to codify the language of the 1977
would exempt activities having an indirect adverse effect on wetlands from regulation, but any activity involving a point source discharge of fill material into water would be subject to permit requirements.

EPA recently proposed regulations that seek a middle ground between these two positions.\(^5\) Although the regulations construe the exemption for normal farming, forestry, and ranching activities to include point source discharges, they attempt to limit its scope by interpreting "normal" to include only established and ongoing activities.\(^5\) Thus, discharges made in connection with the management of rotation of crops in current active use would not require a permit, but a discharge made in order to convert a wetland area to farming, forestry, or ranching would\(^5\). The preamble to the proposed regulations also attempts to circumscribe the permit exemption by explaining that it extends only to those activities specified in the statute (i.e., plowing, seeding, cultivating, minor drainage, and harvesting) and activities of "essentially the same character."\(^5\) Regrettably, however, the regulation itself merely

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Corps' regulations. See, e.g., Conference Report on the Clean Water Act Amendments of 1977, H.R. Rep. No. 830, 95th Cong., 1st Sess. 105 [hereinafter 1977 Conference Report], reprinted in 1977 Legislative History, supra, at 289. See also 33 C.F.R. § 323.2(l), (n) (1979). "[A]ctivities such as plowing, seeding, harvesting, cultivating, or any other activity by any industry that do not involve discharges of dredged or fill material cannot be included in this program." 42 Fed. Reg. 37,130 (1977). The Corps' regulations, therefore, indicate only that farming activities not involving discharges are exempt from the program.

Using legislative history to interpret the apparently plain language of the Clean Water Act is not without precedent. See, e.g., Colorado PIRG v. Train, 426 U.S. 1, 8 ERC 2057 (1976) (legislative history controlling on issue of Clean Water Act's authority to regulate nuclear materials despite the literal language of the statute to the contrary).


56. Id. at 34,263-64. The preamble to the regulations cogently notes that if the intent were to exempt all farming, forestry, and ranching activities from permit requirements, Congress would not have enacted the more specific exemptions in § 404(f)(1)(C) and (E) pertaining to farm or stock ponds, irrigation ditches, the maintenance of drainage ditches, and farm and forest roads. Id.
repeats the ambiguous statutory language and fails to provide procedures for determining whether an activity is similar to those listed in the statute.

In rejecting the point-nonpoint source test for the 404(f)(1)(A) permit exemption, EPA's proposed interpretation relies heavily on the toxic and new use limitations of section 404(f)(2) to ensure that activities having adverse aquatic impacts are subject to permit requirements. EPA has proposed requiring permits whenever discharges contain any pollutant subject to section 307 effluent standards or prohibitions and not merely when those standards are violated. Although this appears to be a defensible construction of the statutory language, it leaves unaddressed the critical questions of whether the permit authority or the discharger has the burden of proving the existence or nonexistence of the toxic pollutant, and what procedures are to be employed in making such determinations.

Although EPA's proposed construction of the controversial 404(f)(1)(A) permit exemption attempts to make sense of the ambiguous statutory language and its legislative history, it would allow some point source discharges to go unregulated. For this reason it is less protective of wetland areas than if the exemption extended only to nonpoint sources. Because the regulations take a middle position, however, they may be less vulnerable to judicial or legislative attack.

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57. Id. at 34,318. The regulation does, however, provide that "minor drainage" does not include the construction of any canal, ditch, dike, or other waterway or structure that drains or modifies any waters of the United States.

58. For example, the regulation could have placed the burden on the discharger to demonstrate that an activity not specified in the statute was "essentially of the same character" as those listed.


60. One desirable procedure would be to require the permit applicant to finance tests on the material to be discharged. The proposed regulations also presume that discharges resulting in "significant discernible alterations to [water] flow or circulation" require permits. Id. at 34,319 (comment to proposed regulation). Permits are also required for discharges converting any water area to dry land or connecting water areas to dry land through dikes, levees, or other fills. Id. It is not clear why these interpretations appear in a comment to the regulation and not in the regulation itself.

61. The regulation could more narrowly confine the scope of exempted activities if it were to clearly specify 1) that only established and ongoing activities are "normal"; 2) that only those activities listed in the statute, and others of similar character, are eligible exemptions; and 3) that both of the above conditions must be met for an activity to be exempt from permit requirements. Of course, even if these conditions were satisfied, a permit would be required if warranted by the toxic or new use caveats. See text accompanying notes 44-45 supra.

62. In a recent case, Avoyelles Sportsmen's League Inc. v. Alexander, 473 F. Supp. 525 (W.D. La. 1979), the federal defendant argued unsuccessfully that the 404(f)(1)(A) exemption was applicable only to nonpoint sources. It is unlikely that this court would have been receptive to regulations that assumed that § 404(f)(1)(A) only included nonpoint sources.

Underlying this entire controversy is an ignorance of the individual and cumulative effects of farming, forestry, and ranching activities upon wetlands. One ground breaking
A recent opinion of the Attorney General gives EPA broad power to interpret the 404(f) exemptions. Although EPA’s regulations are directly applicable only to state programs, the Attorney General’s opinion concludes that the Clean Water Act gives EPA the final authority to interpret the scope of the exemptions to the federal program as well. This opinion helps to resolve confusion in the administration of the 404 program and is further evidence that EPA, not the Corps, is the agency principally responsible for the successful implementation of the 404 program.

2. Exemption for Federal Projects

In addition to the six exemptions for activities having minor effects on water quality, the amended Clean Water Act prescribes a narrow range of federal projects that need not meet 404 permit requirements. This exemption is limited to federal construction projects specifically authorized by Congress and entirely planned, financed, and constructed by a federal agency. As a result, the principal beneficiaries of study illustrated the myriad effects that construction activities can have on wetland resources. See R. Darnell, supra note 11. The data developed by the National Wetlands Inventory, see note 190 infra, may supply some vital information. Until such empirical information is developed, however, satisfactory administrative, judicial, or legislative solutions to this controversy are not likely to be reached. For an intriguing empirical examination of wetlands regulation in four Wisconsin and Minnesota counties, see Bryden, A Phantom Doctrine: The Origins and Effects of Just v. Marinette County, AM. BAR FOUNDATION RES. J. 397 (1978).

63. Letter of the Attorney General, supra note 43.
64. See notes 240-74 infra and accompanying text.
65. Letter of the Attorney General, supra note 43. The opinion also concludes that EPA has the final authority to determine the reach of the term “navigable waters.” Id. Presumably, this means that the Corps will adopt EPA’s definition of that term. See note 25 supra.
66. Section 404(r) provides:
The discharge of dredged or fill material as part of the construction of a Federal project specifically authorized by Congress, whether prior to or on or after [the date of enactment of this subsection], is not prohibited by or otherwise subject to regulation under this section, [or § 301(a) or 402 of the Act (except for effluent standards or prohibitions under § 307),] if information on the effects of such discharge, including consideration of the guidelines developed under subsection (b)(1) of this section, is included in an environmental impact statement for such project pursuant to the National Environmental Policy Act of 1969 and such environmental impact statement has been submitted to Congress before the actual discharge of dredged or fill material in connection with the construction of such project and prior to either authorization of such project or an appropriation of funds for such construction.

Clean Water Act, § 404(r), 33 U.S.C. § 1344(r) (Supp. I 1977). Congress acted out of a concern that the executive branch could use § 404 to veto water projects specifically authorized by Congress. 1977 CONFERENCE REPORT, supra note 52, at 104. See also Thompson, supra note 42, at 284-86.

this exemption are construction projects of the Corps and the Bureau of Reclamation, and certain projects of the Department of Transportation. In order to obtain the exemption, the agency must prepare an adequate environmental impact statement (EIS) and make it available for congressional review prior to either the authorization of the project or the appropriation of construction funds. The EIS must specifically consider the relation of the project to the 404(b) guidelines, which embody the principal 404 permit standards.68

Federal agencies that perform construction projects are presently formulating procedures for implementing this exemption. For example, pursuant to its own 404(r) guidelines69 the Corps had, by July 1979, exempted approximately fifteen of its projects.70 Allowing federal agencies to exempt their own projects without careful oversight could create a large loophole in the 404 program.

Uniform procedures for implementing the federal project exemption should be developed by an agency whose projects are not likely to benefit from the 404(r) exemption. Since the adequacy of the project’s EIS is a prerequisite to this exemption, the most appropriate place to detail these procedures would be in the Council on Environmental Quality’s (CEQ) regulations implementing the National Environmental Policy Act.71 CEQ’s regulations, however, contain no mention of section 404(r) procedures, a serious deficiency that should be remedied by amending the regulations.72 Without direction from CEQ, agency pro-


70. Telephone conversation with Peter Smith, Office of Environmental Review, U.S. Environmental Protection Agency (July 1979).


cedures respecting this exemption and the 404(b) guidelines are likely to vary considerably. In the absence of clarifying CEQ regulations, the burden falls upon EPA to ensure that agency procedures for considering the relationship of these projects with the 404(b) guidelines are explicit and detailed.  

Although section 404(r) provides a potentially dangerous loophole for environmentally destructive federal projects not meeting 404 permit requirements, properly implemented it could foster consideration of the environmental impact of proposed projects before these projects are authorized by Congress. In the past, evaluation of environmental effects has been notably absent in the consideration of legislation authorizing and funding water resources projects. If the 404(b) guidelines
become an integral aspect of the planning of water projects by the Corps, the Bureau of Reclamation, the Department of Transportation, and other agencies, Congress is less likely to authorize environmentally destructive projects.77

One controversy sure to arise concerns the extent to which exempt federal projects must comply with state requirements and procedures. Although section 404(r) exempts qualified projects from state 404 permits, it does not preclude states from establishing requirements outside the 404 program.78 Moreover, section 404(t) of the Act explicitly preserves the right of the states to control discharges of dredged or fill material from federal activities.79 Although some legislative history indicates that section 404(t) is meant to apply only to maintenance dredging by the Corps,80 the legislative record contains equally persuasive statements to the contrary.81 Furthermore, the 1977 Amendments eliminated the previously existing exemption for federal activities from state water quality certification requirements82 and expressly subjected
federal facilities to state requirements. Thus, federal projects that qualify for the 404(r) exemption should not be immune from compliance with other provisions of state law unless the project’s authorizing legislation specifically preempts state authority.

III
THE PERMIT PROCESS

Just as important as the scope of activities subject to 404 permit requirements is the process by which the permits are issued. This process is complicated because a number of different procedures can be employed to make permit decisions, depending on the nature of the activity and the severity of the potential environmental effects. In addition, the standards for issuing permits and the extent of permissible permit conditions are not always clear. This part addresses these issues.

A. Individual Permits and General Permits

The Corps of Engineers can issue section 404 permits for individual projects. Permit applications, which must include a complete description of the proposed project, are filed with the local Corps District Engineer. Upon receipt of a completed application, the District Engineer notifies the public and interested parties and decides whether to hold a public hearing. The District Engineer prepares an

83. Id. § 61(a), 91 Stat. 1598 (amending § 313(a) and effectively overruling the Supreme Court’s decision in Environmental Protection Agency v. State Water Resources Control Board, 426 U.S. 200 (1976)).
84. For a general discussion of preemption, see L. Tribe, American Constitutional Law 376-94 (1978).
87. The District Engineer issues public notice and sends copies of the permit application to EPA, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the state agency responsible for fish and wildlife resources, and other interested agencies and members of the public. Id. § 325.3(c).
88. Public hearings on permit applications are held “whenever they will assist in making a decision” on a permit application. Id. § 327.4(a). In addition, the permittee is entitled to a public hearing where permit modifications or revocations are proposed. Id. § 325.7.


Unlike § 404 hearings, NPDES permit hearings are more formal. See EPA’s Evidentiary and Initial Licensing NPDES Hearing Procedures, 44 Fed. Reg. 32,938-47 (1979) (to be codified in 40 C.F.R. §§ 124.71-.127); see also 44 Fed. Reg. 34,334-44 (1979). Since most
environmental assessment analyzing the anticipated environmental effects of the proposed action. On the basis of all the accumulated information, the District Engineer decides whether and under what conditions a permit will be issued. This decision is usually the final Corps action on the permit application.

Not all individual permits, however, are issued prior to discharging material. The Corps' regulations authorize District Engineers to issue "after the fact," or retroactive permits for discharges made without required permits. Upon discovering an illegal discharge, the District Engineer is directed to conduct an investigation and issue a cease and desist order if the activity is still in progress. After soliciting the views of other federal agencies, the District Engineer may either recommend that legal action be taken against the discharger or request that the discharger apply for an "after the fact" permit.

The Corps' retroactive permit policy needs revision. Until recently, retroactive authorizations were justifiable since geographic expansion of 404 permit jurisdiction made it difficult for some dischargers to know when a permit was required. Now that dischargers have had over two years to accustom themselves to the reach of 404 permit requirements, there is considerably less justification for retroactive autho-

NPDES permits are issued to existing sources, they tend to involve the determination of adjudicative rather than legislative facts. Thus, the more formal procedures are appropriate. Hearing procedures for issuing initial NPDES permits, however, resemble the Corps' informal, legislative-type hearings. See 44 Fed. Reg. 32,884-91 (1979) (preamble to EPA's NPDES regulations). See also Pederson, The Decline of Separation of Functions in Regulatory Agencies, 64 Va. L. Rev. 991 (1978).

89. 33 C.F.R. § 325.2(a)(4) (1979). Where the District Engineer determines, on the basis of the environmental assessment and public response, that the proposed permit activity would significantly affect the quality of the human environment, an environmental impact statement is required. Id. § 325.4(b)(3). Where an EIS is prepared, permits are not issued until 30 days after notice of public availability of the final EIS in the Federal Register. Id. § 325.4(c).

90. Applicants have the opportunity to refute adverse public comments. Id. § 325.2(a)(3). Permit decisions must be supported by written findings of fact, which are used to evaluate the application in terms of the public interest, including conformity with the 404(b) guidelines. Id. § 325.2(a)(6). For a discussion of the 404(b) guidelines, see text accompanying notes 122-34 infra.

91. Where either the EPA, the Fish and Wildlife Service, or the National Marine Fisheries Service objects to the District Engineer's decision, additional administrative procedures take place. See text accompanying notes 154 & 184 infra.

92. 33 C.F.R. § 326.3 (1979). See also id. § 326.5(a)(2).

93. Id. § 326.3.

94. Id. § 326.2. See text accompanying note 164 infra.

95. 33. C.F.R. § 326.3 (1979). General considerations for determining whether to recommend legal action are set forth in id. § 326.4. The EPA must concur in decisions to refer unauthorized discharge cases to the U.S. Attorney and in some instances consultation with Corps Headquarters is necessary. Id. §§ 326.4(c)(3), .4(d). See text accompanying note 165 infra.

96. The three-stage expansion of 404 jurisdiction increased this uncertainty. See note 27 supra.
Some commentators have recommended the complete abolishment of "after the fact" permits. Nevertheless, where discharges have been made in good faith and result in only minimal adverse aquatic impacts, retroactive authorizations can serve a useful function by allowing the 404 program's limited enforcement resources to be used on more serious violations. Even so, the current regulations on "after the fact" permits are inadequate. The regulations require only that the District Engineer determine that the issuance of a permit is in the public interest. Decisionmaking under this standard has been inconsistent and inequitable. The Corps' regulations should be revised to require that the issuance of retroactive permits be conditioned upon findings that the discharge conforms with the 404(b) guidelines and was made in good faith, as well as satisfying the public interest criterion.

In addition to individual permits, the Corps may issue general permits authorizing minor discharges of dredged or fill material on a nationwide, state, or regional basis. Designed to temper claims of unnecessary federal regulation and red tape, general permits exempt authorized activities from individual permit requirements. Nationwide permits, issued as part of the Corps' permit regulations, currently authorize discharges into certain types of waters or resulting from particular activities, provided specified conditions are satisfied. In contrast, regional permits are issued by individual District Engineers for clearly

99. 33 C.F.R. § 326.5(b) (1979).
100. The General Accounting Office reports that the Corps has treated similar discharges differently in different districts, and that the overwhelming majority of unauthorized activities have been issued retroactive permits. U.S. GENERAL ACCOUNTING OFFICE, IMPROVEMENTS NEEDED IN THE CORPS OF ENGINEERS' REGULATORY PROGRAM FOR PROTECTING THE NATION'S WATERS 8-10 (Dec. 23, 1977) [hereinafter cited as GAO REPORT]. The report found that in four of the five districts surveyed, 87 to 99 percent of unauthorized discharges received "after the fact" permits. In the remaining district, the Jacksonville District, which is generally recognized as among the most aggressive Corps districts in implementing the 404 program, only 55 percent of such discharges received subsequent authorization. Id. at 8.
101. For a discussion of the 404(b) guidelines, see text accompanying notes 122-34 infra.
103. 33 C.F.R. § 323.4 (1979). Discharges are authorized in three categories of waters: the headwaters of non-tidal rivers, streams and their impoundments, including adjacent wetlands, id. § 323.4-2(a)(1); certain natural lakes and adjacent wetlands that are less than 10 acres, id. § 323.4-2(a)(2)-(3); and other non-tidal waters that are not part of a surface tributary system emptying into interstate or traditionally navigable waters, id. § 323.4-2(a)(4). The regulations also allow nationwide permits authorizing fills for five types of activities: utility line crossings, bank stabilization, minor road crossings, construction of bridges across tidal waters, and repair, rehabilitation, and replacement of serviceable existing fills. Id. § 323.4-3. All activities authorized by nationwide permits must follow certain management
described categories of discharges that are substantially similar and cause only minimal adverse individual or cumulative effects.\footnote{104}

First initiated in the Corps' 1975 regulations, the general permit program received congressional approval in the 1977 Amendments,\footnote{105} perhaps in response to claims that the Corps was only authorized to grant permits on a case-by-case basis.\footnote{106} The Amendments parallel the Corps' regulations for the issuance of general permits, exemplifying the familiar process whereby administrative innovation receives subsequent legislative sanction.\footnote{107} The statute now limits the term of nationwide or general permits to five years and authorizes their revocation or modification when, after holding a public hearing, the Corps determines that activities authorized by nationwide or general permits are better controlled through individual permits.\footnote{108}

Significant questions concerning the impact of general permits remain unanswered. For example, unless the terms of a general permit impose reporting requirements, no mechanisms exist for monitoring compliance with specified permit conditions or ensuring that particular discharges are authorized by general permits. Although District Engineers have the authority to impose reporting requirements as conditions to general permits,\footnote{109} the Corps maintains no records reflecting how many of the approximately 250 existing general permits have been issued with such requirements.\footnote{110} Absent reporting requirements,\footnote{111} the cumulative impacts of general permits remain largely a matter of

practices. See id. § 323.4-2(b) (types of waters); id. § 323.4-3(b) (certain fills); id. § 323.4(b) (all nationwide permits).

104. Id. § 323.3(c). Although District Engineers have wide latitude in issuing general permits, these permits must meet certain conditions, including compliance with the 404(b) guidelines. Id. § 323.3(c)(2). In addition, District Engineers have the discretion to require that dischargers conducting activities pursuant to general permits comply with reporting requirements. Id. § 323.3(c)(3).

Because nationwide permits are included within the Corps' regulations, the process for issuing them requires notice and comment rulemaking in compliance with the Administrative Procedure Act, 5 U.S.C. § 553 (1976). Regional permits are not part of Corps' regulations, and therefore, the process for issuing them is less formal and similar to that for issuing individual permits. Presumably, where there is more than one district within a state, state permits will be issued jointly and will follow regional permit procedures.


106. See Roe, supra note 26, at 704.


110. Telephone conversation with Chuck Foster, Office of Regulatory Functions, U.S. Army Corps of Engineers (Feb. 1979).

111. Compare the Corps' reluctance to impose reporting responsibilities with EPA's proposed state 404 program approval regulations, which would require states operating 404 programs to receive advanced notification from all persons or agencies intending to discharge under the terms of a general permit. See 44 Fed. Reg. 34,317 (1979).
speculation.112

B. Permit Issuance Criteria

The response of governmental agencies and the public to the Corps' public notices plays a crucial role in the evaluation of individual permit applications and proposed general permits. States may effectively veto a permit application by denying water quality certifications113 or certifications of consistency with applicable coastal zone programs.114 Furthermore, where any other required federal, state, or local authorizations or certifications have been denied, a 404 permit will not be issued.115 Finally, all permit applications must satisfy the Corps' "public interest" review,116 which requires the Corps to balance the purported benefits of a proposal against its reasonably foreseeable detriments117—an extremely broad mandate that forces the Corps to

112. The Corps' assessment of cumulative impacts drew particular criticism from the General Accounting Office. See GAO REPORT, supra note 100, at 5-6. The GAO REPORT also criticized the use of "blanket permits." Unlike general permits, blanket permits do not identify the specific location, nature, or type of activity to be undertaken. These permits have been employed to authorize a variety of oil and gas exploration and production activities over large geographic areas for periods as long as 10 years. Because the GAO could find no legislative authority for the blanket permit concept, it questioned its continued use. Id. at 8. If not administratively discontinued, the practice appears vulnerable to judicial challenge.


116. Id. § 320(a). The Corps' public interest review originated as part of its § 10 permit program. For a discussion of the § 10 program and its relation to the 404 program, see text accompanying notes 16-41 supra.

For years, the Corps confined its § 10 evaluation to factors affecting navigation. Increased public awareness of the adverse effects of many dredging and filling operations, however, coupled with the requirements of the Fish and Wildlife Coordination Act Amendments of 1958, 16 U.S.C. §§ 661-667(e) (1976), prompted the Corps to change its policy. In 1968 the Corps broadened the basis of its permit evaluations to include consideration of environmental factors. See 33 C.F.R. § 320.4(a) (1979).

The subsequent enactment of the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347 (1976), provided additional legislative support for employing public interest review as the touchstone for permit decisions. Public interest review received judicial ratification in Zabel v. Tabb, 430 F.2d 199, 1 ERC 1449 (5th Cir. 1970), cert. denied, 401 U.S. 910 (1972).

117. The current regulations specify four general criteria to be weighed in considering the public interest: 1) the public and private need for the discharge; 2) alternative locations or means of accomplishing the activity; 3) the degree to which the proposed discharge will
make numerous socio-economic decisions in areas where it has no particular expertise. Consequently, the Corps relies heavily on the input of other agencies and the public to make complex qualitative cost-benefit analyses. In essence, the Corps serves as a mediator of myriad special interests. This process places the burden on interested agencies and the public to participate in the permit process if they wish to demonstrate the adverse impacts of proposed activities; presumably a project's proponents will illustrate its potential benefits.

The public interest review has many shortcomings. With all factors subjected to a balancing process, a project's adverse impacts, however severe, are acceptable so long as they are outweighed by the project's purported benefits. It is in the interest of permit applicants to advocate the benefits of their projects and deemphasize adverse impacts. The permit issuer, without detailed guidelines, will not adequately assess the adverse effects of a proposed activity on its own initiative. Other governmental agencies and the public must be relied upon to pinpoint the adverse impacts of a proposed discharge. Unfortunately, these agencies and the public do not have the resources to ensure that proposed discharges are in the public interest. What is needed, therefore, are more explicit nationwide standards to guide permit issuers.

One source of such standards should be guidelines issued by the

affect public and private uses of the area; and 4) cumulative impacts. 33 C.F.R. § 320.4(a)(2) (1979). The Corps' regulations further amplify this balancing process:

That decision should reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered: among those are conservation, economics, aesthetics, general environmental concerns, historic values, fish and wildlife values, flood damage prevention, land use, navigation, recreation, water supply, water quality, energy needs, safety, food production, and, in general, the needs and welfare of the people. Id. § 320.4(a)(1). The public interest review allows the Corps to deny permits on the basis of adverse environmental impact even where the effect on navigation is incidental or nonexistent. See, Wood & Hill, Wetlands Protection: The Regulatory Role of the U.S. Army Corps of Engineers, 4 COASTAL ZONE MANAGEMENT J. 371, 384-402 (1978).

118. Historically, the Corps' principal civil responsibilities concerned constructing dams and maintaining navigation. See, e.g., W. Rosenbaum, The Politics of Environmental Concern ch. 6 (1973).


120. Apart from obtaining the required authorizations and certifications and receiving any objections that may be raised in response to the public notices, there are few substantive standards to guide 404 permit decisions. Where discharges would alter or destroy wetlands identified as "important," the Corps presumes that the issuance of a permit is contrary to the public interest. 33 C.F.R. § 320.4(b) (1979). This presumption, however, can be overcome through the public interest balancing process. Id. § 320.4(a). Moreover, it is applicable only to wetlands that are determined to constitute "productive and valuable resources," a determination that presumably is made on a case-by-case basis. Id. § 320.4(b)(1). In view of the many functions served by wetlands, see note 11 supra, the regulations should at least establish a rebuttable presumption that all wetlands are "productive and valuable resources."

121. The states' power to issue permits amplifies this need. See part VI infra.
Corps and EPA under section 404(b) of the Act. The statutory language and legislative history of section 404 indicate that these guidelines are to embody the principal standards that 404 permits must meet. The Corps' current 404 permit regulations, however, treat the guidelines as only one factor in public interest balancing. The Corps' regulations also do not unequivocally require District Engineers to deny permits where proposed activities are inconsistent with the guidelines, even though the language of section 404(b) clearly warrants such an interpretation.

The basic problem with using the 404(b) guidelines as the principal permit issuance criteria is that current guidelines are substantively deficient. The existing guidelines contain considerably more hortatory than mandatory provisions and prohibit few activities. Thus, where the public interest review uncovers no feasible alternatives to proposed activities, permits are often issued despite significant adverse impacts.

Recently proposed revisions to the 404(b) guidelines would overcome most of these shortcomings. The major change contained in these revisions is a requirement that all 404 permits meet the following tests: 1) that there are no practicable and environmentally preferable alternatives to the proposed discharge; 2) that the proposed discharge not result in unacceptable adverse impacts on the waters of the United

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122. Section 404(b) states that "each such disposal site shall be specified by the Secretary of the Army (1) through the application of guidelines." 33 U.S.C. § 1344(b) (Supp. I 1977). See also 118 Cong. Rec. 33,699 (1972) (statement of Sen. Muskie), reprinted in 1972 LEGISLATIVE HISTORY, supra note 20, at 167, 177-78. Section 404(b), however, allows the Corps to override the guidelines if denying the permit would adversely affect navigation. See note 125 infra.

123. See 33 C.F.R. §§ 325.2(a)(6), .3(b)(2) (1979).

124. Compare id. § 323.5(a) with id. § 325.8(b).

125. Section 404(b)(2) states that where the 404(b) guidelines alone would prohibit issuance of a permit, the Corps can override the guidelines on the basis of the economic impact that permit denial would have on anchorage and navigation. 33 U.S.C. § 1344(b)(2) (Supp. I 1977). This language implies that the guidelines may not be overridden by the public interest review unless specific impact on anchorage and navigation is demonstrated. See also note 155 infra.

126. See, e.g., 40 C.F.R. § 230.4-1 (1979) (suggesting, not requiring, certain approaches to evaluating proposed discharges).

127. The guidelines specifically prohibit discharges that would violate water quality standards. Id. § 230.4-2. This prohibition, however, stems from the authority of states to deny water quality certifications under § 401 of the Clean Water Act, not from § 404(b). See 33 C.F.R. § 320.3(a) (1979). The deficiencies in the existing guidelines are most readily apparent when they are compared with the permit criteria for the ocean dumping of dredged material, promulgated under § 103 of the Marine Protection Research and Sanctuaries Act. See 40 C.F.R. pt. 127 (1979). The disparities effectively provide an incentive to dispose of dredged material in estuaries and other coastal areas. See COASTAL ZONE MANAGEMENT NEWSLETTER, Dec. 5, 1979.

128. See GAO REPORT, supra note 100, at 4.

States; and 3) that all practicable measures to minimize adverse impacts be adopted. By requiring District Engineers to provide written certification that all 404 permits satisfy these tests, the proposed guidelines implicitly require a revision of the Corps' permit procedures, which presently treat the guidelines as one element of the Corps' public interest review for determining whether to issue 404 permits. Separating compliance with 404(b) guidelines from the Corps' public interest review will make 404 permit standards more rigorous. Moreover, written 404(b) evaluations will establish a record upon which the public may review 404(b) determinations.

C. Permit Conditions

The 404 permit process, which exposes proposed activities to widespread public review, is often the only federal control over activities significantly affecting land and water use. Thus, 404 permit conditions can substantially mitigate adverse environmental consequences. For example, a permit to construct a dam could be conditioned to require the maintenance of minimum flows downstream or the protection of habitat, or permit conditions might be inserted to control subsequent runoff and leachate from dredged spoil or solid waste disposal areas.

130. Id. at 54,231-34. In addition, the proposed guidelines list particular impacts that categorically do not comply with section 404(b) and require a demonstration that all fills for nonwater-dependent purposes are necessary. Id. One potential benefit of the proposed guidelines concerns their emphasis on the protection of a variety of fragile aquatic ecosystems, not just wetlands. For example, they set forth decisionmaking criteria aimed at protecting mud flats, vegetated and unvegetated shallows, coral reefs, and riffles and pools. Id. at 54,243-45. Criteria aimed at protecting fish and wildlife, municipal water supplies, and recreation areas are also included, as are habitat development and restoration guidelines. Id. at 54,245-50.

131. Id. at 54,234.

132. See text accompanying note 123 supra.

133. Sufficient legislative authority for detailed 404(b) guidelines is contained in the ocean disposal criteria authorized by § 403(c) of the Clean Water Act, 33 U.S.C. § 1343(c) (1976), upon which the 404(b) guidelines are to be based. These criteria require detailed consideration of the effects of proposed discharges on human health or welfare, plant and animal species, and aesthetic, recreational, and economic values, including the evaluation of available alternatives. Id. The broad ranging considerations required by these criteria indicate that 404 permit decisions are to be based upon an evaluation of the proposed activity's total impact upon the aquatic ecosystem. See 44 Fed. Reg. 54,224-25 (1979) (preamble to proposed 404(b) guidelines). The proposed guidelines recognize that this emphasis on total impacts requires consideration of the cumulative impacts of discharges. See, e.g., id. at 54,243. They do not specifically require, however, that permit discharges that are an indispensable part of a large project having unacceptable adverse effects on the aquatic environment (e.g., a stream channelization or a dredging operation) must be based on the total impact of the proposed discharge and the large project of which it is a part. The final guidelines should close this dangerously large loophole.

134. For a further discussion of the 404(b) guidelines, see text accompanying notes 143-53 infra.

135. For a discussion of the capability of the 404 program to protect stream flows, see text accompanying notes 305-14 infra.
thereby protecting the water quality of adjacent streams.\textsuperscript{136}

There are, however, both legislative and administrative limitations placed upon the inclusion of conditions in 404 permits. A 404 permit cannot require land exchanges to justify activities that otherwise would not satisfy permit requirements.\textsuperscript{137} Also, the Clean Water Act may not impair state systems of water allocation unless necessary to achieve water quality objectives.\textsuperscript{138} Thus, permits cannot be used to impose conditions relating to water conservation, since there are no specific statutory or regulatory provisions governing the issuance of 404 permits concerning water conservation.\textsuperscript{139}

In addition to these legislatively imposed restraints, the Corps has imposed administrative limitations on the conditioning of 404 permits. Although it sanctions the use of permit conditions necessary to meet statutory requirements imposed by its public interest review, as well as other conditions necessary to control primary, direct impacts of discharges, the Corps restricts conditions directed at secondary impacts.\textsuperscript{140} Since these legislative and administrative constraints do not proscribe the use of permit conditions to control the direct adverse effects of permitted activities, the relative ineffectiveness of the 404 program in regulating direct impacts, such as effluent discharges from confined dredged spoil areas, must be attributed to reasons other than policies limiting the imposition of permit conditions.\textsuperscript{141}

\begin{itemize}
\item \textsuperscript{136} See text accompanying notes 195-216 infra.
\item \textsuperscript{137} In the Conference Report on the 1977 Amendments, Congress disapproved issuing any permits to projects not meeting 404 standards. The conferees stipulated that the 404 program should not be employed as a land exchange program in the case of nonfederal projects. 1977 CONFERENCE REPORT, supra note 52, at 105. Federal projects, however, are another matter. See P. Parenteau, Mitigation: Law and Policy (Jan. 6, 1979) (presented at the American Association of Applied Sciences National Meeting).
\item \textsuperscript{138} Clean Water Act, § 101(g), 33 U.S.C. § 1251(g) (Supp. 1 1977). This restriction, discussed in greater detail below, see text accompanying notes 302-14 infra, requires 404 permit conditions affecting state-granted water use rights to be justified by specific statutory or regulatory requirements, such as water quality standards.
\item \textsuperscript{139} Accordingly, mandatory water conservation measures, agreed to as part of a settlement of lawsuits brought against the construction of Strontia Springs Dam (part of the Colorado Foothills project), were not incorporated into the required 404 permit. See [1979] 9 ENVIR. REP. (BNA) 1774.
\item \textsuperscript{140} For instance, a permit condition to control impacts not related to water quality, such as increased shipping or additional housing, is inappropriate unless: 1) the effects are clearly known; 2) no other means exist to control those effects; and 3) there is a reasonable assurance that the condition can be enforced. Office of the Chief of Engineers, Dep't of the Army, Memorandum on Policy Guidance for Permits (Feb. 13, 1978).
\item \textsuperscript{141} For example, the Corps may be reluctant to control the runoff from dredged spoil disposal areas since this regulation would interfere with its own maintenance dredging operations. Potential solutions to this problem are discussed in the text accompanying notes 217-24 infra.
\end{itemize}
The operation of the 404 program is grounded on an intricate set of relationships among four federal agencies. Although the Corps of Engineers issues permits, the Environmental Protection Agency has numerous responsibilities. In addition, the U.S. Fish and Wildlife Service of the Department of the Interior and the National Marine Fisheries Service of the Department of Commerce play significant roles in reviewing activities subject to 404 permit requirements.

A. Corps-EPA Relations

The Corps-EPA partnership is perhaps the most critical component of the operation of the 404 program. Although the Corps has the major responsibility for issuing 404 permits, EPA develops substantive standards governing the issuance of permits and supervises the 404 program. Because of its many duties, EPA has the principal responsibility for the successful implementation of the 404 program. Without active cooperation with the Corps, however, EPA cannot adequately discharge its statutory obligations.

1. The 404(b) Guidelines

The Corps-EPA partnership is most evident in their joint responsibility for promulgating the 404(b) guidelines, which are to embody the principal substantive standards for issuing 404 permits and should serve as the cornerstone of the 404 permit program. Unfortu-

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142. EPA may veto permits and designate geographic areas in which no permit may be issued. The agency may also approve and oversee the operation of state 404 programs, is responsible for taking enforcement actions against unauthorized dischargers, and must evaluate federal construction projects exempt from 404 permit requirements. See note 73 supra and text accompanying notes 154-69 & 249-74 infra.

143. Section 404(b)(1) requires that the guidelines be developed by the EPA “in conjunction with” the Corps. 33 U.S.C. § 1344(b)(1) (Supp. 1 1977).

144. The substantive provisions of existing guidelines and recently proposed revisions are discussed in text accompanying notes 122-34 supra.

145. Effluent guidelines have served such a role in the NPDES program. The Supreme Court has confirmed that effluent guidelines are to govern the issuance of NPDES permits. E.I. DuPont de Nemours & Co. v. Train, 430 U.S. 112, 119-21, 9 ERC 1753, 1755 (1977).

146. See text accompanying notes 27-31 supra.
gram.\textsuperscript{147} Second, the 1977 Amendments diffused much of the political controversy surrounding the program by reaffirming its jurisdictional scope and expanding EPA's role in the program's operation. Third, the 1977 Amendments dramatically expanded the function of the guidelines.\textsuperscript{148} For all these reasons, the Corps and EPA are revising the extremely vague standards and procedures in the existing 404(b) guidelines.

On September 18, 1979, extensive revisions of the 404(b) guidelines were proposed in the Federal Register.\textsuperscript{149} As discussed above, these proposed revisions contain more stringent permit standards than do the existing guidelines.\textsuperscript{150} Moreover, by specifying detailed national criteria, the proposed revisions would limit the discretion of District Engineers in making permit decisions. In the past, the lack of uniform standards, coupled with the Corps' policy of administrative decentralization,\textsuperscript{151} has allowed District Engineers to operate the permit program with minimal oversight from Washington. Unfortunately, the result has been the application of different permit standards in different Districts.\textsuperscript{152} The proposed guidelines would reduce the likelihood of inconsistent Corps' decisions and would help ensure that the advent of state 404 programs does not further fragment the permit program.\textsuperscript{153}

2. EPA's Permit Evaluation Responsibilities

In addition to its responsibility for setting permit standards, EPA can also veto the issuance of permits. Whenever an EPA Regional Administrator objects to the issuance of proposed permits and the District Engineer disagrees with EPA's objections, the resolution of the matter is elevated first to the Corps Division Engineer and, if necessary, to Washington for consideration by the Chief of Engineers and the EPA.
The Corps may override objections based on the 404(b) guidelines if denying the permit would have a detrimental economic effect on navigation and anchorage. Even where the Corps overrides the guidelines, however, EPA enjoys ultimate authority to veto all 404 permits. Section 404(c) authorizes the EPA Administrator to limit or prohibit all discharges that would have an unacceptable adverse effect upon water supplies, fish, wildlife, or recreation areas. EPA has never invoked its 404(c) veto authority although it recently promulgated regulations specifying the procedures by which vetoes would be effected.

Section 404(c) also provides EPA with authority to protect critical environmental areas by determining prior to a permit application that some or all types of discharges would be restricted or denied. The criteria for making such advanced determinations are the same as for permit vetoes—unacceptable adverse effects upon water supply, fish, wildlife, or recreation areas.

About 10 percent of proposed permits are elevated to Division Engineers and approximately 25 to 30 cases reach Washington each year. EPA REVIEW, supra note 85, at 26-27. Most of these permit “escalations” are, however, precipitated by the U.S. Fish and Wildlife Service pursuant to its Fish and Wildlife Coordination Act responsibilities. See notes 176 & 184 infra and accompanying text.

The Corps has never invoked its override authority, but probably only because the existing 404(b) guidelines are so vague that few discharges are prohibited. If the more stringent revisions of the guidelines are adopted, the Corps may make greater use of its override authority.

“The Administrator is authorized to prohibit the specification (including the withdrawal of specification) of any defined area as a disposal site. . . .” 33 U.S.C. § 1344(c) (Supp. I 1977). The Corps’ override authority is subject to this provision. Id. § 1344(b). Before taking 404(c) actions, the Administrator is required to consult with the Corps, issue a public notice, and provide an opportunity for public hearings. Id. § 1344(c). “[W]ithdrawal of specification” indicates that EPA may revoke or revise already issued permits.

EPA’s initial attempt to invoke 404(c) proceedings—concerning a permit the Corps issued to fill 22 wetland acres for expansion of the Packer River Barge Terminal in south St. Paul, Minnesota—was stillborn. Although EPA requested the Corps to suspend the permit pending a hearing on whether to veto the permit under 404(c), see Memorandum from the EPA Deputy Administrator to Director of Civil Works, U.S. Army Corps of Engineers (July 11, 1978), the agency decided against pursuing the 404(c) proceedings. A potential candidate for EPA’s first 404(c) veto may be the proposed Portsmouth, Virginia oil refinery. The Secretary of the Army recently announced his decision to issue a 404 permit that would allow construction of the refinery, in spite of the opposition of environmentalists and the Secretary of the Interior who fear that it would subject the fragile marine resources of the Chesapeake Bay to the possibility of a catastrophic oil spill. See e.g. COASTAL ZONE MANAGEMENT NEWSLETTER, Oct. 10, 1979, at 3-4; id. Dec. 12, 1979, at 1-2.

The language of 404(c) grants the Administrator the general power to deny or restrict the use of an area “for specification” and does not tie such determinations to the permit process. 33 U.S.C. § 1344(c) (Supp. I 1977). See 40 C.F.R. § 230.7 (1979).
wildlife, or recreation areas. Effective use of this authority could protect areas with important resources from the potential effects of dredged spoil or fill disposal, thereby infusing the 404 program with a badly needed prospective component. Under 404(c) particularly fragile aquatic areas—for example, wetlands—could be protected from discharges before submitting permit applications. Judicious use of this authority could enable the 404 program to serve as a regulatory component of ongoing resource inventories and planning programs.

Regrettably, EPA has never made an advanced determination. It has neither specified the procedures by which it would make such determinations, nor explicitly provided citizens opportunities to request such determinations. As long as the agency limits its 404(c) authority to the ad hoc, reactive mechanism of vetoing permits, EPA will not exercise its full authority to protect critical resource areas.

3. Enforcement

Enforcement actions also involve EPA-Corps coordination. The Corps' regulations require District Engineers to issue cease and desist orders and take interim protective measures against unauthorized discharges in progress. Until the 1977 Amendments, however, the Corps had no legislative authority to seek judicial sanctions against

160. 33 U.S.C. § 1344(c) (Supp. I 1977). House Report on the Federal Water Pollution Control Act Amendments of 1972, H.R. Rep. No. 911, 92d Cong., 2d Sess. 129 (1972), reprinted in 1972 Legislative History, supra note 20, at 816: "The Secretary may issue no permits which would violate the designation of the Administrator, found necessary to protect critical areas. In referring to 'critical areas,' the types of areas the Committee has in mind are shellfish beds, breeding or spawning areas, highly susceptible resort beaches, and similar areas."

161. For example, information being collected by the National Wetlands Inventory, see note 190 infra, could identify areas meriting 404(c) protection. Similar information could also be produced by state coastal management plans, which are required by the Coastal Zone Management Act to identify "areas of particular concern" and "areas of preservation or restoration." 16 U.S.C. § 1454(b)(3), 1455(e)(9) (1976).

162. Although EPA has not yet promulgated regulations concerning advanced determinations, recently proposed permit veto regulations mention the advanced determination authority and imply that similar standards should govern EPA's exercise of its veto and advanced determination powers. 44 Fed. Reg. 14,579-80 (1979). One technique for identifying potential areas for 404(c) advanced determinations, which EPA could borrow from the Marine Sanctuaries Program, is to solicit nominations from other federal agencies, the states, and the public. See Blumm & Blumstein, supra note 114, at 50025-26.

163. The era of 404(c) dormancy may be coming to an end. A coalition of environmental groups are considering filing a petition requesting that EPA employ its authority to protect certain wetlands in the Grays Harbor, Washington estuary. Telephone conversation with David Ortman, Research Associate, Friends of the Earth (Feb. 1980).

164. 33 C.F.R. § 326.2 (1979). Enforcement actions may also lead to civil and criminal penalties. Clean Water Act, §§ 309(c)-(d), 404(s)(4), 33 U.S.C. §§ 1319(c)-(d), 1344(s)(4) (Supp. I 1977). Because a fine is relatively poor compensation for a destroyed wetland, a number of courts have granted equitable relief in the form of restoration orders. See, e.g., U.S. v. Fleming Plantations, Nos. 78-2110, 78-3111, 12 ERC 1705 (E.D. La. Dec. 22, 1978). See also Banner, Coastal Restoration in South Florida, 51 Fla. B.J. 571 (1977); McIntosh &
either permit violations or discharges for which no permit had been issued. Consequently, EPA and the Corps entered into a Memorandum of Understanding allowing District Engineers, with EPA concurrence, to refer cases to the United States Attorney under EPA's enforcement authority. The 1977 Amendments give the Corps explicit authority to seek judicial sanctions against violators of 404 permits, but the Corps still must use EPA authority to halt dischargers who have failed to obtain required permits.

EPA has not assumed an active role in 404 enforcement. This may be because enforcement of the NPDES program places severe demands on the agency, or because EPA's role in the operation of the 404 program was unclear prior to the 1977 Amendments. As a result, the Corps has initiated most enforcement actions under the procedures established by the Corps-EPA Memorandum of Understanding. But since the 1977 Amendments make clear that EPA is to be the principal agency enforcing the Clean Water Act's prohibition against discharging without a permit, EPA may, in the future, assume a more conspicuous 404 enforcement role.


167. Discharges without a permit constitute the bulk of 404 violations. See GAO REPORT, supra note 100, at 8. Most of these unauthorized discharges are not subjected to court action, but are issued "after the fact" permits. See note 100 supra. For a decision questioning the Corps' authority over unauthorized discharges, see Parkview Corp. v. Dep't of the Army, 455 F. Supp. 1350 (E.D. Wis. 1978).

168. Section 404(n) incorporates EPA's enforcement authority under § 309 of the Act. In addition, once state 404 programs are approved, EPA will attempt to oversee a coordinated enforcement strategy between the state, the Corps, and EPA. See 44 Fed. Reg. 32,919 (1979) (to be codified in 40 C.F.R. § 123.4(e)); see also 44 Fed. Reg. 34,314 (1979) (proposed regulation).

169. See Office of Enforcement, U.S. Environmental Protection Agency, Memorandum on EPA's Enforcement Role in Section 404 (July 13, 1978) (outlining an anticipated expansion in EPA's 404 enforcement role).

Citizens may also play a role in 404 enforcement. Section 505 of the Act authorizes citizen suits against persons violating any "effluent standards or limitations," defined to include violations of the general prohibitions of § 301. 33 U.S.C. § 1365(a), (f) (Supp. I 1977). Because unauthorized discharges in violation of § 404 are also violations of § 301, citizens may bring enforcement actions against unauthorized dischargers in the federal court district where the discharge occurs. Id. Although § 505 authorizes similar actions against violators of NPDES permits, it does not provide for a private right of action against those who violate their 404 permits. See the definition of "effluent standard or limitation" in § 505(f), 33 U.S.C. § 1365(f). As a result, it appears that the Corps must initiate enforcement actions against 404 permit violations. To the extent that 404 permit violations result in violations of applicable water quality standards, however, they constitute violations of § 301(b)(1)(C) of the Act, and therefore should be enforceable through citizens' suits under § 505.

Enforcement actions are not necessarily subject to the discretion of the Corps.
EPA's future role in the 404 program remains clouded, however, by the prospect of insufficient funding. Without a sufficient level of personnel, the agency cannot carry out its 404 obligations. EPA's fiscal year 1980 budget request to Congress included only $885,000 for the 404 program, even though the program's 1979 budget was nearly $3.3 million.\textsuperscript{170} Because the $3.3 million budget permitted EPA to review only ten percent of the 404 permit applications, Senator Chafee has charged EPA with shortchanging the 404 program in order to pursue public health programs.\textsuperscript{171} Failure to seek adequate funding for the 404 program brings the EPA commitment to a strong 404 program into serious question.

B. The Role of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service

Because federally issued 404 permits are subject to the requirements of the Fish and Wildlife Coordination Act,\textsuperscript{172} the U.S. Fish and Wildlife Service of the Department of the Interior and the National Marine Fisheries Service of the Department of Commerce also participate in the 404 permit process.\textsuperscript{173} The Coordination Act requires that "equal consideration" be given to fish and wildlife in undertaking water resources development activities.\textsuperscript{174} This requirement is met through consultation between the federal agencies constructing or operating water projects and the Fish and Wildlife Service, the National Marine Fisheries Service, and relevant state fish and wildlife agencies.\textsuperscript{175} The consultation responsibilities of the Corps are detailed in a language of § 309(a)(3), 33 U.S.C. § 1319(a)(3) (Supp. I 1977), giving EPA authority to enforce NPDES permit conditions, parallels that of § 404(s)(1), 33 U.S.C. § 1344(s)(1) (Supp. I 1977), giving the Corps similar authority to enforce 404 permits. Some courts have held that § 309(a)(3) imposes a nondiscretionary duty upon EPA to take administrative action or institute judicial proceedings. \textit{See} South Carolina Wildlife Federation v. Alexander, 457 F. Supp. 118, 11 ERC 2045 (D. S.C. 1978); Illinois v. Hoffman, 425 F. Supp. 71 (S.D. Ill. 1977); United States v. Phelps Dodge Corp., 391 F. Supp. 1181, 7 ERC 1823 (D. D.C. 1975). But see Sierra Club v. Train, 557 F.2d 485, 10 ERC 1433 (5th Cir. 1977).


171. Id. As approved by Congress, the 1980 budget provides approximately $2 million for EPA's 404 program responsibilities. Telephone conversation with Jim Rice, Permits Division, United States Environmental Protection Agency (Nov. 1979).


175. Id. § 662(a).
Memorandum of Understanding requiring the Corps to consider the effect of its permit decisions on fish and wildlife.\textsuperscript{176}

The Coordination Act plays an important role in the Corps' denial or conditioning of permits to protect fish and wildlife. Its Coordination Act responsibilities prompted the Corps in 1968 to revise its section 10 permit evaluation criteria\textsuperscript{177} and institute its public interest review.\textsuperscript{178} The Corps' 404 regulations now require that "great weight" be given to the views of state and federal fish and wildlife agencies.\textsuperscript{179} Thus, these agencies can have a great deal of influence on individual permit decisions.

In response to claims that the Coordination Act's procedures resulted in lengthy delays in issuing permits,\textsuperscript{180} Congress included in the 1977 Clean Water Act Amendments two provisions aimed at expediting permit applications. First, the Fish and Wildlife Service must submit its written comments to the Corps within ninety days of receiving notice of a permit application.\textsuperscript{181} Second, section 404(q) requires the Secretary of the Army to develop Memoranda of Understanding with EPA and the Departments of Interior, Commerce, Transportation, and other appropriate agencies\textsuperscript{182} to ensure, to the maximum extent practicable, that permit decisions are made within ninety days after the Corps has issued a public notice.\textsuperscript{183}

The development of these section 404(q) Memoranda of Under-

\textsuperscript{176} The Memorandum of Understanding, signed in 1967 by the Secretary of the Army and the Secretary of the Interior, is reprinted in 33 C.F.R. pt. 325, app. B (1979). In addition, the Memorandum of Understanding provides "escalation" procedures for referring disagreements between Corps District Engineers and Fish and Wildlife Service Regional Directors to the national offices of the Corps and the Fish and Wildlife Service.

\textsuperscript{177} Section 10 of the Rivers and Harbors Act of 1899, 33 U.S.C. § 404 (1976). For a discussion of the Corps' § 10 program, see text accompanying notes 16-41 supra.

\textsuperscript{178} See e.g. Barker, supra note 22, at 138-39; Power, supra note 26, at 527-28; Thompson, supra note 42, at 268-69.

\textsuperscript{179} 33 C.F.R. § 320.4(c) (1979).

\textsuperscript{180} 1977 Conference Report, supra note 52, at 105.

\textsuperscript{181} Clean Water Act § 404(m), 33 U.S.C. § 1344(m) (Supp. I 1977). The Corps is required to publish notices of permit applications within 15 days of receiving them. Id. § 404(a), 33 U.S.C. § 1344(a). There is some disagreement in the legislative history whether all procedures pursuant to the Coordination Act, including escalation procedures, must be completed within the 90 day period. Compare 123 Cong. Rec. H12,936 (daily ed. Dec. 15, 1977) (joint statement of Reps. Roberts & Claussen) (final comments within 90 days) with id. S19,659 (remarks of Sen. Stafford) (some cases will require more than 90 days), reprinted in 1977 Legislative History, supra note 52, at 360, 486. If this provision is interpreted as precluding negotiations on particularly controversial permits beyond the 90 day limit, it could seriously undermine the effectiveness of the existing coordination procedures.

\textsuperscript{182} "Other appropriate agencies" might include the Department of Housing and Urban Development, the Department of Energy, and the Tennessee Valley Authority.

\textsuperscript{183} In all probability, the Memoranda of Understanding will modify Coordination Act procedures so that permit decisions can be made within 90 days. The inclusion of the words "to the maximum extent practicable," however, indicates that Congress anticipated the resolution of some permit applications would take longer than 90 days.
standing, required by the statute to have been completed by June 27, 1978, has been delayed by disagreements between the agencies. One disagreement concerns the degree to which EPA, the Fish and Wildlife Service, and the National Marine Fisheries Service should be able to invoke escalation procedures. The Corps believes that delays in permit processing should be minimized by allowing only field level personnel to invoke these procedures for permits that require the preparation of an environmental impact statement. Although this approach would facilitate permit processing, it would also seriously alter the balance of power between the Corps and other agencies by increasing the authority of District Engineers to issue permits despite objections. Further insulation of District Engineers from other agencies is likely to increase fragmentation of the 404 program.

Another cause for the delay of the Memoranda of Understanding has been the Department of Transportation. The Department of Transportation has contended that the Corps' public interest review should not be employed to effectively overrule the department's evaluations of project alternatives. This position constitutes a serious challenge to the viability of the 404 program as it would require the Corps to abrogate responsibilities placed upon it by numerous federal statutes and court decisions.

Thus, implementing section 404(q) Memoranda of Understanding may produce more problems than it resolves. The potential mischief that this rather innocuous provision could wreak on the 404 program demonstrates the fragility of the intrafederal relations essential to the program's effective operation. Recently proposed regulations of the Departments of Commerce and Interior, aimed at standardizing Coordination Act procedures, will affect this interaction by making consultation requirements more explicit. In light of the actions taken by

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184. See text accompanying note 154 supra. Although EPA derives its authority to escalate from the Clean Water Act, the other agencies derive their authority from the Coordination Act. See Memorandum of Understanding Between the Secretary of the Interior and the Secretary of the Army, 33 C.F.R. pt. 325, app. B (1979).

185. Telephone conversation with Curtis Clark, U.S. Army Corps of Engineers (Apr. 1979); telephone conversation with Bernie Goode, U.S. Army Corps of Engineers (July 1979); telephone conversation with Peter Smith, Office of Environmental Review, U.S. Environmental Protection Agency (Apr. 1979).

186. The Corps has been criticized for its uneven application of the 404 permit program. See GAO REPORT, supra note 100.

187. Telephone conversation with Curtis Clark, U.S. Army Corps of Engineers (Apr. 1979); telephone conversation with Bernie Goode, U.S. Army Corps of Engineers (July 1979); telephone conversation with Peter Smith, Office of Environmental Review, U.S. Environmental Protection Agency (Apr. 1979).

188. The statutes that form the basis of the Corps' public interest review include NEPA, the Coordination Act, and other statutes listed in the Corps' regulations. See 33 C.F.R. § 320.3 (1979). See also text accompanying notes 116-21 supra.

189. 44 Fed. Reg. 29,300 (1979). These regulations were proposed on May 18, 1979 by
the Corps and the Department of Transportation, further impetus is needed to ensure that the consultation process mandated by the Coordination Act does not founder.\textsuperscript{190}

\section*{V}
\textbf{THE 404/NPDES INTERFACE: PLUGGING THE GAPS}

The problem of coordinating federal agencies is not limited to the internal administration of the 404 program. It also extends to integrating the 404 program with other federal programs. One such program is the National Pollutant Discharge Elimination System (NPDES).

The NPDES program, authorized by section 402 of the Clean Water Act,\textsuperscript{191} has a number of parallels with the 404 program. Both programs establish nationwide permit systems, regulate point source discharges of pollutants, extend to all waters of the United States and can be enforced through the imposition of civil and criminal sanctions. Although the demarcation between the programs is often thought to turn only on whether the discharge consists of wastewater (NPDES) or solid material (404), in reality the line is not so distinct.\textsuperscript{192} Indeed, it has never been altogether clear when a discharge requires a 404 permit

the Departments of Interior and Commerce in response to President Carter's June 6, 1978 Water Policy Message. \textit{14 Weekly Comp. of Pres. Doc. 1044} (June 6, 1978). The proposed regulations establish detailed escalation and reporting requirements for all federal and federally authorized water resource activities, including the issuance of 404 permits, and require explicit consideration of means to minimize the effects of projects on fish and wildlife. It is not yet clear how these regulations will affect the content of the 404(q) agreements. Answers may not be readily forthcoming because the promulgation of final regulations has been delayed by the Department of Interior's preparation of an environmental impact statement. \textit{44 Fed. Reg. 64,097} (1979) (notice of intent to prepare an environmental impact statement).

Another undertaking that may affect the implementation of the Coordination Act is the National Wetlands Inventory. Since 1975, pursuant to its authority under the Fish and Wildlife Act of 1956, 16 U.S.C. § 742(f) (1976) and the Fish and Wildlife Coordination Act, 16 U.S.C. § 661(2) (1976), the Fish and Wildlife Service has been conducting a nationwide survey designed to map and determine the status of the country's wetlands. This effort has already resulted in several publications and a series of maps and will ultimately produce a National Wetland Status and Trend Report. \textit{See Montanari & Wilen, Techniques Developed and Presently Being Used to Conduct the National Wetland Inventory Project}, in PROCEEDINGS OF THE NATIONAL WETLAND PROTECTION SYMPOSIUM, \textit{supra} note 11, at 205.

Although the inventory will provide a great deal of badly needed research on wetlands, it will not provide a definitive basis for asserting 404 jurisdiction because the inventory is not designed for regulatory purposes, the Fish and Wildlife Service's definition of wetlands is broader than that in the Corps' 404 regulations, and areas mapped as wetlands by the inventory are not necessarily subject to the 404 program. \textit{See Interagency Task Force Report}, \textit{supra} note 11, at 5.


\textsuperscript{192} Because the scope of activities potentially subject to NPDES permits is broad enough to encompass discharges of dredged or fill material, the NPDES program is a residual system of regulation, requiring permits for all discharges not authorized by a 404 permit. NPDES permits are issued "for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1) (Supp. I 1977). "Pollutant" is defined to include both dredged spoil and such
rather than an NPDES permit, and this uncertainty continues to cause considerable difficulty in implementing the two programs.

Because the criteria and procedures for obtaining permits under the two programs differ, the applicable permit requirements are an important concern to both dischargers and the public. NPDES permits require existing dischargers to clean up their effluent over time and are therefore fundamentally different from 404 permits, which generally authorize one-time discharges. Thus, the criteria for issuing 404 permits emphasize alternatives to the discharge, in contrast to the NPDES approach of gradually reducing the pollutant discharge through the application of available technology. This part considers three situations in which the gray area between the 404 and NPDES programs remains unsettled and suggests how these discharges can be regulated most effectively.

A. Solid Waste Discharges In Wetlands

Wetlands have long provided convenient areas in which to locate landfills and garbage dumps. By filling low-lying and periodically inundated areas with solid waste, a community can dispose of its refuse and at the same time create developable land. Until recent years, the dumping of solid waste in wetlands was a widely accepted practice. Discharging residuals into wetlands is now unlawful without a permit issued pursuant to the Clean Water Act. Whether these activities are subject to 404 or NPDES permits is, at this time, uncertain.

The Corps of Engineers' definition of fill material in its 404 regulations indicates that where such material is discharged into water for the primary purpose of disposing of wastes, an NPDES, not a 404 permit, is required. The preamble to the regulations explains that although such discharges might technically fit within the definition of fill material, the disposal of waste materials is to be regulated by the NPDES permit program. During the two years that the policy has been in effect, however, EPA has never asserted its NPDES permit authority

fill material as solid waste, incinerator residue, garbage, sewage sludge, munitions, biological materials, wrecked or discharged equipment, rock, sand, and cellar dirt. See 33 C.F.R. § 1362(6).

Permits issued to new sources pursuant to § 306's new source performance standards are, of course, an exception. See 33 U.S.C. § 1316 (1976). NPDES permits are issued according to a prescribed set of nationwide effluent limits based upon available technology. See note 145 supra. Where technology-based limitations are not sufficient to meet ambient water quality standards, more stringent treatment levels are required. Clean Water Act § 301(b)(1)(C), 33 U.S.C. § 1311(b)(1)(C) (1976). Permits are issued by EPA or approved states, setting progressively stiffer discharge limits and requiring dischargers to monitor and report to the permitting authority on a regular basis.

See text accompanying notes 113-34 supra.

See note 10 supra.

33 C.F.R. § 323.2(m) (1979).

over these discharges, leaving them without effective regulation. Furthermore, by making the applicable permit turn on the primary purpose of the discharge, the regulations apparently give dischargers the opportunity to shop for the friendliest permit issuing authority.

The National Wildlife Federation has formally petitioned EPA to clarify the uncertainties of controlling solid waste facilities in wetlands. The petition asks EPA to define solid waste disposal so that such discharges are subject to NPDES permit requirements, thus effectively eliminating the primary purpose test as a means of determining which type of permit is required. Although this plan is preferable to the present lack of regulation, it would be more effective to regulate solid waste disposal in wetlands through the 404 program. The NPDES program seeks to improve water quality by issuing permits that limit the nature and amount of pollutant emissions. In contrast, the 404 program's water quality benefits are largely realized through the denial of permits for harmful activities.

If the NPDES program is to serve as the vehicle to protect wetlands from solid waste disposal, it must emphasize denial rather than issuance of permits. As the National Wildlife Federation petition suggests, EPA can accomplish this by promulgating an effluent guideline prohibiting discharges from solid waste point sources. Without such a national standard, NPDES permit decisions would be made on a case-by-case basis because EPA and thirty-two different states issue permits, case-by-case decisions will inevitably lead to inconsistent results. Establishing such guidelines, however, is time consuming

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199. NWF Petition, supra note 198, at 2, 5.

200. See note 193 supra.

201. See note 193 supra.

202. One such harmful activity is the filling of wetlands for nonwater-dependent purposes. Water dependency is one of the criteria specified in the existing 404(b) guidelines. 40 C.F.R. § 230.5(b)(8)(ii)(a) (1979). A water dependent activity is one that must have direct access to, have proximity to, or be located in water. Id.

203. NWF Petition, supra note 198, at 8-10.

204. The authority to promulgate such a guideline can be found in § 301 and § 304 of the Clean Water Act. See E.I. DuPont de Nemours & Co. v. Train, 430 U.S. 112, 7 ERC 1753 (1977).

205. Where no national effluent guidelines exist, case-by-case NPDES permit determinations are permissible under section 402(a)(1) of the Act. See 33 U.S.C. § 1342(a)(1) (1976). Moreover, EPA's ability to veto a state-issued permit to fill wetlands with solid wastes, absent an effluent guideline, has been restricted by recent court decisions. Washington v. EPA, 573 F.2d 583, 11 ERC 1339 (9th Cir. 1978); Ford Motor Co. v. EPA, 567 F.2d 661, 11 ERC 1018 (6th Cir. 1977).

An additional problem in using the NPDES program to control solid waste disposal in wetlands is that NPDES permit issuers are generally unfamiliar with wetlands values and
and likely to be challenged by dischargers.

Because it would be difficult to employ effectively the NPDES program to protect wetlands from solid waste fills, the capabilities of the 404 program deserve closer scrutiny. The 404 program already has the equivalent of an effluent guideline in the existing 404(b) guidelines. Although the current guidelines leave much to be desired, they do require denial of permits for filling wetlands for nonwater dependent purposes unless there are no practicable alternatives. Combined with the wetlands protection policies expressed in the Corps of Engineers' regulations, this standard would result in the denial of the vast majority of permits to discharge solid wastes in wetlands. If the Corps were to issue a permit that EPA thought objectionable, EPA could veto the permit under its 404(c) authority.

NPDES control of solid waste discharges in wetlands originated as a response to legislative attempts to limit the geographic scope of the 404 program. Faced with this threat, the Corps and EPA decided that shifting to the NPDES program the burden of regulating discharges where the primary purpose was waste disposal would salvage some measure of wetlands protection. With the prospect of legislative intervention now diminished, the reasons for NPDES regulation are much less persuasive. The most effective solution may be to have the Corps revise its regulations to cover solid waste discharges.

This does not, however, mean that the NPDES program has no role to play in the regulation of solid waste discharges in wetlands. Such discharges not only destroy wetlands, but also can pollute nearby bodies of water through subsequent runoff and leachate. The use of management practices designed to minimize adverse spillover effects, such as lining of the disposal area, could mitigate these problems. In the past the Corps has not demonstrated much interest in controlling such secondary impacts through 404 permit conditions.

wetlands protection since the program has been almost exclusively concerned with the technology of wastewater control.

206. See text accompanying notes 123-28 supra.
207. 40 C.F.R. § 230.5(b)(8) (1979). For a definition of water dependency, see note 201 supra.
208. See note 120 supra.
209. See note 156 supra and accompanying text. State-issued 404 permits are also subject to EPA veto. See text accompanying note 264 infra.
210. For a description of the legislative attempts to restrict the jurisdiction of the 404 program, see text accompanying notes 27-31 supra.
211. The preamble to the Corps' regulations notes that EPA concurred in the altered definition of fill material. 42 Fed. Reg. 37,130 (1977).
212. The bills that attempted to restrict the 404 program's geographic jurisdiction would not have affected the NPDES program. See H.R. 9560, 94th Cong., 1st Sess., § 16, 121 CONG. REC. 28,607 (1976); H.R. 3199, 95th Cong., 1st Sess., § 16, 123 CONG. REC. H940 (daily ed. Feb. 7, 1977).
213. See note 140 supra and accompanying text.
more, the Corps may not possess the technical expertise to design management practices capable of combatting such problems. EPA, with substantial responsibilities for solid waste practices under the Resource Conservation and Recovery Act,\textsuperscript{214} is in a much better position to design and monitor such management practices. The obvious mechanism for accomplishing this is the NPDES program.\textsuperscript{215} Thus both the 404 and NPDES programs can play a role in effectively regulating solid waste discharges in wetlands. The 404 program, with its superior capability to deny permits, should serve as the mechanism by which to decide whether the discharge is to be authorized. Where this decision is an affirmative one, as may well be the case with respect to numerous solid waste facilities already located in wetlands, an NPDES permit would still be required to minimize spillover effects by specifying suitable management practices.\textsuperscript{216}

The foregoing discussion questions the efficacy of relying exclusively on NPDES permits to regulate solid waste disposal in wetlands. There is merit, however, in the National Wildlife Federation's petition, for it has caused EPA to consider this problem seriously for the first time. Moreover, if the Corps of Engineers proves unwilling to reassert 404 control over such discharges, the approach suggested in the petition may offer the only viable means of controlling the devastating impacts of solid waste disposal in wetlands.

\textbf{B. Toxic Runoff From Dredged Spoil Disposal Areas}

Spillover effects from dredged spoil disposal areas are a serious environmental problem, and finding suitable places to dispose of dredged spoil is increasingly difficult. For years the spoil was largely either discharged into open waters or used to fill adjacent wetlands.

\begin{itemize}
\item \textsuperscript{215} Although it might at first appear that the regulation of solid waste disposal in wetlands should be accomplished by the programs authorized by the Resource Conservation and Recovery Act (RCRA), § 1006(a) of RCRA defers to Clean Water Act programs. \textit{Id.} § 6905(a). Section 1006(b) requires consolidation of RCRA and Clean Water Act programs to avoid duplicative requirements. \textit{Id.} § 6905(b). Thus, for example, a joint permit might be issued for a facility requiring both a Clean Water Act permit and a hazardous waste permit under § 3005 of RCRA. \textit{Id.} § 6925. The Clean Water Act's permit issuance criteria would apply where the two Acts are inconsistent. \textit{Id.} § 6905(a). For a description of EPA's recently proposed consolidated permit regulations, see note 53 \textit{supra}.
\item \textsuperscript{216} The use of best management practices in NPDES permits has received both judicial and legislative sanction. See NRDC v. Costle, 568 F.2d 1369, 10 ERC 2025 (D.C. Cir. 1977), Clean Water Act, § 304(e), 33 U.S.C. § 1314(e) (Supp. 1 1977) (authorizing best management practices to supplement effluent limitations to control toxic pollutant runoff or spillage that is ancillary to industrial manufacturing processes). See also note 276 \textit{infra} for EPA's definition of best management practices applicable to the § 208 program. Requiring both an NPDES and a § 404 permit for solid waste disposal is not inconsistent with § 402(a)(1), 33 U.S.C. § 1342(a)(1) (1976), because the permits seek to regulate different discharges. The preferred solution, however, would be to issue a joint permit.
\end{itemize}
The enactment and subsequent implementation of the 404 program has curbed the latter practice, and while open water disposal continues, Congress encouraged its termination in 1972 and again in 1977. The search for suitable locations to dispose of dredged spoil has in recent years centered on upland areas. Because of the costs involved in transporting large volumes of spoil, however, most disposal areas have been located close to the waterbody being dredged. Although situating spoil sites along shore areas makes short-term economic sense, it can cause significant water quality problems. Dredged sediments from navigational channels usually contain toxic pollutants, including heavy metals and chlorinated hydrocarbons. When these pollutants find their way back to adjacent water bodies through runoff, river overflows, or leachate, severe environmental problems may occur.

Effluent from dredged spoil sites is clearly a point source; it is unlawful unless authorized by a 404 or NPDES permit. The Corps' current 404 regulations supplant NPDES regulation by including runoff and overflow from these areas within the scope of their authority. The 404 program, however, is not the most effective means of controlling such discharges since it generally evaluates only the potential effect of particular discharges that replace aquatic areas with dry land or that change the bottom elevation of waterbodies. Section 404 permits do not usually contain conditions requiring either treatment techniques or monitoring of subsequent runoff or leachate pollution. On the other hand, NPDES permits routinely impose monitoring and reporting requirements and set effluent limitations for discharges. The NPDES program, therefore, is better suited to controlling the continuous effluent emitted from confined dredged spoil disposal areas.

Although the Corps has yielded its authority over solid waste discharge in wetlands, it remains committed to asserting 404 jurisdiction over runoff and leachate from dredged spoil sites. One reason for the agency's greater interest in the regulation of dredged spoil disposal


219. See note 33 supra.

220. 33 C.F.R. § 323.2(1) (1979).

221. Id. § 323.2(m).

222. See text accompanying notes 196-97 supra. In fairness to the Corps, it relinquished § 404 control over solid waste disposal in wetlands with good intentions. See text accompanying notes 210-12 supra.
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may be its position as the nation's largest navigational dredger. Having the authority both to approve dredged spoil sites and to control the effluent emanating from them allows the Corps to regulate its own activities.

Asserting NPDES control over the spillover effects of confined dredged disposal areas would produce at least two benefits. First, it would provide a more effective means of monitoring and controlling these effluent discharges. Second, it would insert a check on the Corps' dredged spoil disposal activities by permitting a disinterested authority to regulate the quality of adjacent waters. Regrettably, there is no petition requesting EPA to regulate dredged spoil effluent similar to the National Wildlife Federation's petition concerning solid waste disposal. Although the Corps would most likely resist such a petition, it would subject the current system of regulating the spillover effects of dredged spoil disposal to closer scrutiny. At a minimum, this should put pressure on the Corps to monitor and control these effects.

C. Dam-Induced Pollution

The environmental problems stemming from dam construction—principally replacement of land with reservoirs, destruction of fish and wildlife habitat, and loss of natural river flows—have long been appreciated. The 404 program provides one effective means of regulating these effects by requiring Corps permits for dam construction. As with discharges of solid waste and dredged spoil, the problems created

226. Dam construction requires a 404 permit because dams fall within the definition of fill material. 33 C.F.R. § 323.2(n) (1979). In addition, an authorization under § 9 of the 1899 Rivers and Harbors Act is also required. See note 16 supra. The construction of some dams may, however, be exempted from 404 permit requirements under § 404(r) of the Clean Water Act. See text accompanying notes 66-84 supra.
by dams are not exclusively confined to the initial siting decision. The operation of dams, especially large hydroelectric power generation dams, can create significant water quality problems by causing chemical changes in the water stored in reservoirs. This source of water pollution currently is uncontrolled.

Regulating the operation of dams for water quality purposes poses different problems than controlling the spillover effects of solid waste and dredged spoil discharges because only point source discharges require Clean Water Act permits. Although the Act includes solid waste and dredged spoil within its definition of pollutants, it does not specifically include dam-induced chemical changes in water quality. Moreover, it is questionable whether chemical changes are a discharge since, arguably, dams do not add anything to the water behind their reservoirs. The EPA has accepted these arguments, made principally by the Corps and the Bureau of Reclamation, the agencies that operate federal dams. Consequently, NPDES permits never have been required for dam operation.

A recent federal court decision has called into question the validity of the federal agencies' arguments. In South Carolina Wildlife Federation v. Alexander, the District Court of South Carolina, denying a motion to dismiss by the federal agency defendants, held that if dams change the chemical composition of downstream water, they would be subject to NPDES permit requirements. The court found the Clean Water Act's definition of pollutant, which includes "chemical wastes," to be broad enough to embrace chemical changes caused by dam operation.

Although the court's decision may mean that an NPDES program can regulate dam-induced water pollution, it is unlikely that such ac-

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227. Dams cause water pollution because water stored in reservoirs loses oxygen and gains a higher concentration of dissolved metals, pesticides, and herbicides. See, e.g., Walla Walla District, U.S. Army Corps of Engineers, Final Environmental Impact Statement, Lower Granite Project 4-9, 4-12, 4-13 (1975). In addition, water spilled over dams often contains high levels of suspended gases such as supersaturated nitrogen. Id. at 4-24. Thus, water downstream of reservoirs is usually of markedly lower quality than that upstream. See, e.g., E. Chaney & L. Perry, Salmon and Steelhead Anlaysis, Summary Report 6 (Sept. 1, 1976) (describing the impact of Columbia River Basin dams on anadromous fish resources). For the legal implications of this effect, see South Carolina Wildlife Fed'n v. Alexander, 457 F. Supp. 118, 11 ERC 2045 (D.S.C. 1978), discussed in text accompanying notes 231-32 infra.

228. See note 33 supra.


232. Id. at 125-26, 11 ERC at 2050-51. The court further ruled that if such changes were proved to result from dam operation, rather than natural causes, there was a "discharge from a point source" within the meaning of the Act. Id. at 126-27, 11 ERC at 2051-52.
tion will be taken soon. First, the plaintiffs in that case must still try their case on the merits,\textsuperscript{233} and even if they succeed, an appeal to the Fifth Circuit is a virtual certainty. Moreover, as in the case of solid waste discharges, effective control will require the promulgation of an effluent guideline,\textsuperscript{234} which itself might be challenged. Finally, even if all these barriers are hurdled, federal and nonfederal dam operators may convince Congress to exempt dams from NPDES regulation.\textsuperscript{235}

Still, the decision offers hope that the NPDES permits can be employed to minimize adverse water quality effects of dam operation and provides another example of how the strengths of the 404 and NPDES programs can be combined to improve the prospects for cleaner water.

VI

THE STATE ROLE

Although the 404 program initially did not allow states to operate the permit program, it nevertheless provided substantial opportunities for states to influence the issuance of 404 permits. These opportunities were expanded in the 1977 Amendments, which authorized qualified state 404 programs to supplant Corps permits in non-navigable waters. In addition, where states have developed approved 404 programs, the 1977 Amendments allow states to use their 208 nonpoint source programs as a substitute for 404 permits for minor discharges.

States have a great deal of influence over the federal 404 program. States can veto Corps-issued 404 permits where proposed discharges would violate water quality standards set pursuant to section 401 of the Act.\textsuperscript{236} States with approved coastal zone management programs have a similar veto power.\textsuperscript{237}

\begin{itemize}
  \item \textsuperscript{233} Trial on the merits would require plaintiffs to marshall sufficient evidence to prove that the dam would proximately cause degradation of water quality.
  \item \textsuperscript{235} For example, a congressional exemption was granted after the District of Columbia Circuit held that EPA could not administratively exempt irrigation return flows from NPDES permit requirements in NRDC v. Costle, 568 F.2d 1369, 10 ERC 2025 (D.C. Cir. 1977). \textit{See} Clean Water Act, § 502(14), 33 U.S.C. § 1362(14) (Supp. I 1977).
  \item \textsuperscript{236} 33 U.S.C. § 1341 (1976 & Supp. I 1977); 33 C.F.R. §§ 320.3(a), 325.2(b)(1) (1979). The 1977 Amendments extended this authority to include federal projects that require 404 permits. See text accompanying notes 82-83 \textit{supra}. This effectively overrules Minnesota v. Hoffman, 543 F.2d 1198, 9 ERC 1353 (8th Cir. 1976), which exempted the Corps’ dredging from the § 401 certification process.
  \item \textsuperscript{237} Where a proposed 404 permit affects the defined coastal zone of a state, the 404 permit will not be issued without a certification that the activity is consistent with the state’s Coastal Zone Management program. 33 C.F.R. §§ 320.3(b), 325.2(b)(2) (1979). The terms of the Coastal Zone Management Act, 16 U.S.C.A. §§ 1451-1464 (West 1974 & Supp. 1979), allow the Secretary of Commerce to override a state’s denial of certification of consistency under limited circumstances. \textit{See} Blumm & Noble, \textit{supra} note 114, at 50055-56.
\end{itemize}
nying other required authorizations for proposed discharges.238 Moreover, the Corps' regulations defer to state determinations where a state has approved a proposed project.239

A. State 404 Programs

In addition to the significant influence that states enjoy over the federal 404 permit program, the 1977 Clean Water Act Amendments authorize EPA to approve state-operated 404 permit programs.240 This development is part of the legislative tradeoff that preserved the 404 program's jurisdiction over non-navigable waters.241 Despite significant pressure from interest groups to restrict the 404 program to navigable waters,242 Congress maintained the program's jurisdictional scope but offered states an opportunity to replace expanded federal 404 jurisdiction with their own 404 permit programs.

The most noticeable difference between state and federal 404 programs lies in their scope of coverage. State programs have jurisdiction to issue 404 permits only in waters that do not fall within traditional definitions of navigability. Thus, even in states with approved programs, federal 404 permits will be required in traditionally navigable waters, including all waters subject to the ebb and flow of the tide, and adjacent wetlands.243 States are not preempted from adopting other

238. See 33 C.F.R. § 320.4(j) (1979). Prior to the 1977 Amendments this veto was inapplicable to 404 permits for federal activities. Congress, however, appears to have eliminated this disparity by enacting a new § 404(t), which explicitly subjects all 404 activities, including federal activities, to the requirements of state permit programs. See discussion of § 404(t) in text accompanying notes 79-83 supra.

239. In such circumstances the Corps will deny a permit only where there are "overriding national factors of the public interest that necessitate permit denial." 33 C.F.R. § 320.4(j)(4) (1979). These regulations should be revised to clarify that compliance with 404(b) guidelines is one such overriding factor.


241. See note 31 supra.

242. For a discussion of legislative attempts to limit the geographic scope of § 404, see Caplin, supra note 31.

243. Section 404(g)(1) reserves to the Corps authority over "those waters which are pres-
regulatory programs that extend to all waters in the state. Where they do so, however, the Corps will continue to issue 404 permits in traditionally navigable waters. In these areas, two permits will be required: a federal 404 permit and a non-404 state permit.

Although state programs have limited ability to displace the federal permit program, they are capable of controlling a broader range of activities. For example, a state could control activities exempted from the Corps' permit program, such as normal farming, forestry, and ranching activities. Although the states may regulate these activities, it is questionable whether such permits would be considered 404 permits.

Responsibility for approving and overseeing state 404 programs rests with EPA. Both the legislative history and the statutory language of the 1977 Amendments to section 404 indicate that EPA is to establish approval and oversight procedures similar to those that exist for state NPDES programs authorized by section 402 of the Act. EPA has responded to this directive by consolidating its state NPDES and 404 program approval procedures and requirements into one set of

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245. 33 C.F.R. § 320.40(j)(7) (1979). This requirement should not result in duplicate permit processing because Corps' regulations encourage joint permits and grant considerable weight to state permit decisions. See note 239 supra and accompanying text. Joint processing has been implemented in several states with wetland regulatory programs. See J. Kusler, An Emerging Partnership: Federal, State, and Local Roles in Wetland and Floodplain Management 8 (Feb. 10, 1979) (prepared for the U.S. Water Resources Council) (specifically noting joint processing in Georgia and Florida).
247. See discussion of 404 program exemptions in text accompanying notes 42-84 supra.
248. The question arises since the permits would exceed the limitations placed on state 404 programs by § 404(f)(1)(A), 33 U.S.C. § 1344(f)(1)(A) (Supp. I 1977). If such permits are not 404 permits, federal review and enforcement would not be available.
249. In fact, during the 94th Congress, one proposed legislative solution to the expansion of the 404 program would have authorized EPA to issue permits in non-navigable waters. This amendment, which passed the Senate, is discussed in Caplin, supra note 31, at 480-89.
250. EPA notes that 12 of the 14 basic statutory requirements of approvable state NPDES programs are identical, or nearly identical, to the requirements of state 404 programs. 43 Fed. Reg. 37,082 (1978). See also Enforcement Division Directors Meeting, U.S. Environmental Protection Agency, EPA's Enforcement Role in Section 404 of the Clean Water Act, App. B (July 13, 1978) (listing the statutory similarities); 1977 CONFERENCE REPORT, supra note 52, at 101. "The authority which the State must have in order for the program to be approved by the Administrator is essentially the same authority it must have to administer a 402 permit program under the Act." Id.
regulations.251

The basic statutory requirement for approving state 404 programs is that the state program be capable of issuing permits that ensure compliance with the 404(b) guidelines.252 Like state NPDES programs, state 404 programs must: provide notice of permit applications to EPA, adjacent states, and the public; have the authority to terminate or modify permits for cause; provide for inspection, monitoring and reporting of permit activities; and have the capability to impose civil and criminal penalties for permit violations and unauthorized discharges.253 In addition, state 404 programs must "assure continued coordination with Federal and Federal/State water-related planning and review processes."254 EPA's state program approval regulations further re-

251. See 44 Fed. Reg. 32,918 (1979) (to be codified in 40 C.F.R. pt. 123); see also id. at 34,298 (1979) (proposed regulation); see note 53 supra.


253. Id. § 404(h)(1)(A)-(G), 33 U.S.C. § 1344(h)(1)(A)-(G) (Supp. I 1977). In addition to meeting substantive requirements, states must satisfy procedural requirements to gain approval of 404 programs. Most of these requirements parallel the state NPDES approval process, including a full and complete program description, a statement by the state attorney general that the state has adequate authority to implement its program, and a demonstration that the state program has sufficient funding, expertise, and personnel to carry out the program. Compare 33 U.S.C. § 1344(g)(1) (Supp. I 1977) with id. § 1314(i)(2).

Also, state program approval regulations require the state attorney general to conduct an analysis of the state's law prohibiting the taking of private property without just compensation and to provide assurances that any applicable judicial interpretations will not adversely affect the successful implementation of the state's 404 program. 44 Fed. Reg. 32,920 (1979) (to be codified in 40 C.F.R. § 123.6(c)(1)). See also id. at 34,314. An elucidation of how the state's "takings" law might affect the state's program is essential since the federal 404 program has often been attacked on taking issue grounds, and the legislative history of the 1977 Amendments indicates that state 404 programs are to function as a matter of state law. See 1977 CONFERENCE REPORT, supra note 52, at 104.

254. 33 U.S.C. § 1344(h)(1)(H) (Supp. I 1977). This requirement does not have an analog in the requirements for state NPDES programs. Although its scope is uncertain, it could be interpreted to bar state programs from issuing permits that conflict with the statutory requirements of a Corps-issued 404 permit. These requirements are listed in the Corps' regulations. 33 C.F.R. § 320.3 (1979). There is a statement in the legislative record to the effect that, at a minimum, substantive compliance with the Fish and Wildlife Coordination Act and the National Environmental Policy Act is required. See 124 CONG. REC. S19959-60 (daily ed. Jan. 4, 1978) (comments of Sens. Chafee & Muskie). Procedural requirements imposed by NEPA, however, notably the environmental impact statement requirements, are inapplicable to permits issued pursuant to approved state programs because these programs function pursuant to state law. See 1977 CONFERENCE REPORT, supra note 52, at 104. Thus, there is no "major federal action" required to trigger preparation of an EIS. See also Chesapeake Bay Foundation v. United States, 453 F. Supp. 122, 11 ERC 1897 (E.D. Va. 1978).

EPA's proposed state program approval regulations take a lukewarm approach to the implementation of § 404(h)(1)(H), mentioning only that state 404 program activities must be consistent with Wild and Scenic Rivers Act designations and state water quality manage-
require that states implementing 404 programs enter into Memoranda of Agreement with both EPA and the Corps concerning jurisdiction and coordination of activities.\textsuperscript{255}

Once a state has submitted to EPA a "complete and sufficient" application for program approval, EPA will hold a hearing in the state.\textsuperscript{256} After considering the comments of other federal agencies and the public, the agency must determine whether the program meets the requirements of section 404 and its regulations. Since EPA has only 120 days from the time of program application to deny approval,\textsuperscript{257} the agency is under substantial pressure to orchestrate federal agency and public review, consider comments, evaluate the state's program, and make a decision.\textsuperscript{258}

It is likely that all states wishing to issue 404 permits will need to enact new legislation to meet program approval requirements. Even existing state wetlands protection programs probably lack the necessary authority over all the waters a state 404 program must control and all

\begin{footnotesize}
\begin{enumerate}
\item See 44 Fed. Reg. 32,919-20 (1979) (to be codified in 40 C.F.R. §§ 123.3(h), 123.5). See also id. at 34,313 (proposed regulations). In addition to detailing how the state's program will apply EPA policies, including monitoring, enforcement, and reporting efforts, the Memorandum of Agreement with EPA will likely devote considerable attention to how state permit issuance procedures will permit federal review. States must provide EPA, the public, and other states whose waters may be affected by proposed activities with an opportunity to review and comment upon 404 permit applications. 33 U.S.C. § 1344(j) (Supp. I 1977). EPA, in turn, must ensure that the Corps and the Fish and Wildlife Service have similar opportunities to comment. Id.

The Memorandum of Agreement with the Corps must, among other things, identify those waters in which the state will supplant Corps permit responsibilities. 44 Fed. Reg. 32,919-20 (1979) (to be codified in 40 C.F.R. § 123.5). The Corps-state agreement is also to describe in detail Corps-issued general permits that the state intends to administer and enforce, and any joint processing procedures the Corps and state wish to adopt. Id.

EPA had originally proposed that the Corps-state agreements include a provision assuring that the states refrain, at least temporarily, from issuing 404 permits for any discharge on which the Corps had already begun preparing an environmental impact statement. See 43 Fed. Reg. 37,104 (1978). This approach would have provided states with valuable information with which to evaluate major federal actions significantly affecting the quality of the environment, including projects by the Corps. EPA has deleted this innovative provision, however, presumably due to pressure from the Corps. See 44 Fed. Reg. 32,919-20 (1979) (to be codified in 40 C.F.R. § 123.5); id. at 32,876 (preamble to regulation); see also id. at 34,314 (proposed regulation).

EPA will transmit copies of the state's proposal to the Corps, the Fish and Wildlife Service, and the National Marine Fisheries Service. 33 U.S.C. § 1344(g)(2) (Supp. I 1977); 44 Fed. Reg. 32,920 (1979) (to be codified in 40 C.F.R. § 123.7(a)(2)); see also id. at 34,315 (proposed regulation). The federal agencies have 90 days to submit written comments on a state's proposal to EPA. 33 U.S.C. § 1344(g)(3) (Supp. I 1977).

If EPA decides not to approve the state program, it must describe the revisions or modifications necessary for approval. Id. § 1344(h)(2)(B).
\end{enumerate}
\end{footnotesize}
the activities it must regulate. Furthermore, EPA’s program approval regulations require that 404 permits be issued by a single state agency. This would disqualify states in which authority is fragmented among agencies or delegated to localities. Existing state wetlands programs are also unlikely to possess the authority to prohibit or condition potential discharges into critical areas before permit applications are received.

The easiest course of action for states having NPDES authority and seeking to obtain 404 program approval is to amend their enabling statutes to include authority to regulate discharges of dredged or fill material. Jurisdictional requirements over waters and activities would be satisfied if implementing regulations were drafted to reflect the federal definitions of “waters of the United States” and “dredged or fill material.” Administrative regulations and Memoranda of Agreement would satisfy most of the other requirements, although the establishment of the requisite enforcement authorities and the capability to make advanced determinations would most likely require specific legislation.

Once approved, state programs are subject to three types of federal oversight. First, states must provide EPA with an opportunity to review permit applications and proposed individual and general permits. EPA may veto state permits when it determines that they do

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259. A state program must have authority to ensure compliance with all provisions of the Clean Water Act. Id. § 1344(h)(1)(A)(i). Thus, a state program must reach all areas covered by the federal program, except of course those areas specifically reserved to the federal program by § 404(g)(1). State programs must also have jurisdiction over all discharges of dredged or fill material. For a description of what this entails, see 33 C.F.R. §§ 323.2(l), .3(n) (1979).

260. 44 Fed. Reg. 32,919 (1979) (to be codified in 40 C.F.R. § 123.4(b)(1)); see also id. at 34,314 (proposed regulation). EPA is apparently reconsidering this requirement. See id. at 34,262 (preamble to proposed regulations).

261. Both the current and the proposed regulations require that a state program have this capability. Id. at 32,920 (to be codified in 40 C.F.R. § 123.6(c)(2)); see also id. at 34,314 (proposed regulation). This authority parallels that of EPA under § 404(c) of the Act, 33 U.S.C. § 1344(c) (Supp. I 1977). EPA retains its 404(c) authority even in areas subject to the jurisdiction of approved state programs. 43 Fed. Reg. 37,105 (1978) (comment to proposed regulation). States are also unlikely to possess the enforcement capabilities—equivalent to those of EPA—that § 404 requires. 33 U.S.C. § 1344(h)(1)(A),(B),(G) (Supp. I 1977). In addition, states must also promulgate guidelines to provide for citizen participation in state enforcement proceedings. See Citizens for a Better Environment v. EPA, 596 F.2d 720, 12 ERC 1657 (7th Cir. 1979).


263. 33 U.S.C. § 1344(j) (Supp. I 1977). Although § 404(j) appears to require that states provide EPA with copies of both individual permit applications and proposed general permits, the section is ambiguous. Moreover, § 404(h)(1)(C), 33 U.S.C. § 1344(h)(1)(C) (Supp. I 1977), only requires that the public receive notice of permit applications. Because of its
not comply with the requirements of section 404, including the 404(b) guidelines.\textsuperscript{264} The agency, however, has the authority to waive federal review of certain types of state permits by regulation or through individual Memoranda of Agreement.\textsuperscript{265} Second, EPA has the authority to take enforcement actions against both violations of permit conditions and discharges unauthorized by permits.\textsuperscript{266} Furthermore, EPA may assume responsibility to enforce the entire program when violations are widespread due to the state’s failure to enforce its program effectively.\textsuperscript{267} Finally, EPA has authority to withdraw its approval of a state’s 404 program when it finds that the state’s implementation of its program does not meet the requirements of the Act.\textsuperscript{268}

Concern that providing for review of both applications and proposed permits would unnecessarily extend the period for permit processing, EPA has proposed that only certain types of discharges be subject to the more detailed procedures involved in preparing and circulating draft and proposed permits. See 44 Fed. Reg. 34,262-63, 34,315 (1979) (proposed regulation and accompanying preamble). While expeditious permit processing is, of course, to be encouraged, it should not be advanced at the expense of effective federal oversight. At a minimum, EPA’s proposed regulations should expand the categories of discharges requiring the preparation and circulation of draft and proposed permits. For example, discharges into wetlands classified as important by the National Wetlands Inventory should be subject to more extensive review procedures. See note 190 supra. In addition, where permit applications engender significant adverse comments, EPA should have the authority to require more detailed permit processing.


265. 33 U.S.C. § 1344(i) (Supp. I 1977) (by regulation); id. § 1344(k) (by individual memoranda). Because federal review of proposed permits can take up to 90 days, it is likely that states will urge EPA to agree to broad waivers, although EPA would first have to consult other federal agencies with review responsibilities. EPA regulations require consultation with the Corps of Engineers, the Fish and Wildlife Service, and the National Marine Fisheries Service on these waivers. 44 Fed. Reg. 32,921 (1979) (to be codified in 40 C.F.R. § 123.7(b)(3)(ii)); see also id. at 34,313 (proposed regulation).

266. 33 U.S.C. § 1319 (Supp. I 1977). Section 404 explicitly reserves this authority after state program approval. Id. § 1344(n). This authority extends both to violations of permit conditions and discharges unauthorized by permits. Id. § 1319(a). Although the latter are the principal 404 enforcement problem, see note 167 supra, the former may require careful oversight where activities are conducted pursuant to general permits issued or administered by the state. See 33 U.S.C. § 1344(h)(5) (Supp. I 1977).


268. Id. § 1344(i). EPA has recently proposed regulations detailing criteria for program withdrawal. 44 Fed. Reg. 34,303 (1979). It is doubtful, however, that EPA will frequently resort to the draconian remedy of withdrawing approval.

EPA has similar authority over NPDES programs but has not yet exercised it. During the summer of 1978 EPA seriously considered withdrawing approval of the Ohio NPDES program because of alleged deficiencies in the state’s enforcement of its program. Before withdrawal procedures were initiated, however, EPA and the state reached an agreement whereby EPA agreed to increase funding for the state’s program, and the state agreed to expand and improve its implementation efforts. See [1978] 9 ENVIR. REP. (BNA) 835. It is conceivable, however, that due to the comparatively greater interest of the Fish and Wildlife Service and the National Marine Fisheries Service in the operation of the 404 program, these agencies might pressure EPA to assume a more active oversight role with respect to recalcitrant states. In addition, the results of a soon-to-be-released study by the Urban Insti-
State 404 programs can play an important role in helping to achieve the nation's water quality goals. Because state programs may control activities that the federal 404 program cannot regulate, they can provide more comprehensive protection to wetlands. The extensive measures states must take to meet federal requirements, however, may serve as a disincentive for states to seek 404 program approval. Since Congress has made it national policy for the states to assume 404 permit responsibilities, it is incumbent upon EPA to provide states with incentives that encourage qualified states to implement 404 programs. Foremost among these is the provision of adequate funding to support the administration of state programs. EPA must ensure that federal funding is adequate to carry out the costs of effectively implementing state programs, and that states are apprised of the availability of such funding when they are considering whether to seek program approval. If EPA does not have sufficient funding to cover the costs of effective state 404 programs, it should seek additional appropriations from Congress.

Eventually, state 404 programs should be allowed to regulate all the waters within their jurisdictions, not merely those outside the traditional bounds of navigability. State NPDES programs already have this authority; its denial to state 404 programs is incongruous. If the 404(b) guidelines are made sufficiently stringent to provide effective control over the issuance of permits, and if EPA has adequate funding to perform its oversight responsibilities, there is little reason to prefer Corps regulation to that of the states. This is particularly so in light of the Corps' apparent reluctance to implement aggressively all aspects of the 404 program and the congressional policy favoring state assumption of 404 permit responsibilities.

Institute, analyzing the effectiveness of state wetlands protection programs, may provide EPA with valuable information in constructing its oversight role. For an overview of the study, see N. Rosenbaum, Regulatory Enforcement in Wetlands Program (Jan. 25, 1979) (paper presented to the U.S. Water Resources Council).

269. For example, state programs can regulate the alteration of wetlands not involving discharges and activities that fall within exemptions to the federal 404 program. See notes 246-47 supra and accompanying text.


272. It is questionable, however, whether EPA is requesting sufficient funding to carry out its own 404 program responsibilities, let alone that required for state program implementation. See text accompanying notes 170-71 supra.


274. Id. § 1251(b).
B. State 208(b)(4) Programs

Once a state has received approval of its 404 program, it has a further opportunity to exempt categories of minor discharges of dredged or fill material from the permit process by establishing and implementing statewide regulatory programs approved under section 208(b)(4) of the Clean Water Act. These programs afford states an opportunity to control minor discharges through "best management practices (BMP)," rather than through the more detailed procedures of the 404 permit process.

States have a number of incentives to seek approval for 208 BMP programs. First, these programs eliminate time-consuming federal review of individual activities. Second, unlike state 404 programs, state 208 BMP programs are not limited to non-navigable waters. Thus, an approved 208(b)(4) program may offer states the opportunity

275. Id. § 1288(b)(4)(B). State 208(b)(4) programs are exempted from 404 permit requirements by § 404(f)(1)(F) of the Act, id. § 1344(f)(1)(F).

276. BMP's are precautions that minimize adverse effects on the environment and include practices such as contour farming, streambank protection, and the planting of vegetation in critical areas. EPA defines a BMP as a practice, or combination of practices, that is determined by a State (or designated areawide planning agency) after problem assessment, examination of alternative practices, and appropriate public participation to be the most effective, practicable (including technological, economic, and institutional considerations) means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

40 C.F.R. § 130.2(q) (1979). The Conference Report on the 1977 Amendments stressed that EPA should ensure that such practices be "in fact the best applicable practices" and that they protect the integrity of waterbodies "at least to the same extent" as 404 permits. 1977 CONFERENCE REPORT, supra note 52, at 106.

For this goal to be realized, BMP's should not only specify approved activities but should also designate disapproved practices. Authority for such prohibitions stems from § 208(b)(4)(B)(iv)(II), 33 U.S.C. § 1288(b)(4)(B)(iv)(II) (Supp. I 1977), which requires a 208(b)(4) program to have the authority to reduce or eliminate discharges. This requirement illustrates why a state might want to implement its 208(b)(4) program through a permit system. Nothing in the Clean Water Act would preclude a state from adopting this approach.

277. The Senate Report on the 1977 Clean Water Act Amendments indicates that in authorizing these programs Congress wished to establish a mechanism promoting more localized control over activities, such as conventional farming and forestry practices, that do not involve a major change in the use of an area but which, if left unregulated, could adversely affect wetlands. 1977 SENATE REPORT, supra note 262, at 10-11. Believing that effective regulation of these practices could be accomplished without the kind of federal oversight involved in the operation of state 404 programs, Congress looked to § 208—a section described by the Senate Report as the Clean Water Act's "laboratory for new institutional control mechanisms for vexing nonpoint source problems." Id. at 10.

278. Once EPA approves a § 208(b)(4) program, federal oversight is limited. EPA does not have an opportunity to review individual activities, although it does possess the authority to withdraw approval of a 208(b)(4) program where it finds "substantial failure" to administer the program in accordance with prescribed conditions. 33 U.S.C. § 1288(b)(4)(D) (Supp. I 1977). This authority should also include the less drastic step of withdrawing approval of specific BMP's instead of the entire program, particularly where EPA finds that the cumulative effects of certain BMP's result in more than minor impacts.
to gain control over activities that otherwise will remain within the federal program.\textsuperscript{279} Third, again unlike state 404 programs, 208 BMP programs are selective; they need not cover all categories and classes of activities that could be regulated by such a program.\textsuperscript{280} Finally, federal funding and technical assistance are available to help implement 208 BMP programs.\textsuperscript{281}

There are two prerequisites to establishing a 208(b)(4) program. First, the state must have an approved state 404 program.\textsuperscript{282} This requirement will delay the approval of 208(b)(4) programs since no states have demonstrated the necessary authority and organization to secure 404 program approval. Second, section 208 BMP programs are to be developed as part of a statewide regulatory program for nonpoint sources.\textsuperscript{283} This development would encourage states to preempt local control over nonpoint source pollution.

The most important questions in implementing section 208(b)(4) concern the scope of activities such a program may regulate. The language of section 208(b)(4) indicates only that an approved program may control any "appropriate activity" for which a best management practice has been approved by EPA.\textsuperscript{284} The scope of activities appropriate for 208(b)(4) regulation, however, is circumscribed by both the language of the statute and the legislative history of the 1977 Amendments, which indicate that Congress intended that only activities having minor individual or cumulative effects on the aquatic environment should be regulated by 208 best management practices.\textsuperscript{285} Included


\textsuperscript{280} 1977 CONFERENCE REPORT, supra note 52, at 106-07. For example, a state might choose to regulate only certain types of forestry or agricultural activities, leaving the remainder subject to 404 control.

\textsuperscript{281} The Fish and Wildlife Service is required to provide technical assistance without cost to states in developing and implementing 208(b)(4) programs. 33 U.S.C. § 1288(i)(1) (Supp. I 1977). Technical assistance may also be requested from EPA and the Corps of Engineers. Id. § 1288(g)-(h). Alaska, California, Hawaii, and Washington have approached the Fish and Wildlife Service regarding this assistance. NATIONAL WETLANDS NEWSLETTER, Nov. 1978, at 7.

States may also use federal matching funds to carry out § 208 BMP programs. Congress has authorized $150 million per year to carry out this purpose. 33 U.S.C. § 1288(f)(3) (1976). EPA could increase the incentives for states to develop 208(b)(4) programs by specifically earmarking a portion of these funds for that purpose.


\textsuperscript{283} Id. § 1288(b)(4)(B). Statewide nonpoint source control programs can be developed and submitted to EPA for approval whenever the governor of a state determines that a class or category of nonpoint sources is better controlled by a statewide regulatory program, rather than through areawide water quality plans. Id. § 1288(b)(4)(A).

\textsuperscript{284} Id. § 1288(b)(4)(C).

\textsuperscript{285} Section 404(f)(2) excludes from the scope of § 208(b)(4)(B) those discharges that bring "an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such
within the permissible scope of 208(b)(4) regulatory programs are activities that do not require state 404 permits, such as nonpoint sources and activities that are exempt from 404 regulation by virtue of section 404(f).

In addition to regulating activities exempted from 404 permits, approvable 208(b)(4) dredge or fill programs must ensure compliance with the 404(b) guidelines and any applicable standards for toxic pollutants. Section 208(b)(4) dredge or fill programs must also provide for consultation with the state agency with jurisdiction over fish and wildlife, incorporate a process that ensures that the program will complement and be coordinated with the state's 404 program, and assure "continued coordination with Federal and Federal-State water-related planning and review processes, including the National Wetlands Inventory."

The 208(b)(4) program has several attractions. Most obviously, it can eliminate more detailed procedures involved in the issuance of 404 permits for activities having minor adverse aquatic impacts. Its decentralized approach allows the development of protective management practices by state agencies familiar with local conditions and industry operations. Finally, since an approved state 404 program is a prerequisite for approval of a 208(b)(4) program, the attractiveness of 208(b)(4) may serve as an incentive for states to develop approvable 404 programs.

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286. Section 208(b)(4)(B) requires that state BMP programs regulate the "discharge or other placement of dredged or fill material." 33 U.S.C. § 1288(b)(4)(B) (Supp. I 1977) (emphasis added). Thus, it is arguable that, in addition to point source discharges, such programs must regulate nonpoint sources resulting in the placement of dredged or fill material in waterbodies. The Senate Report on the 1977 Amendments also contemplates the regulation of nonpoint sources by 208(b)(4) programs. See 1977 Senate Report, supra note 262, at 11.

287. In fact, it is possible that 208(b)(4) programs must regulate 404 permit exemptions. Both Representatives Harsha and Senator Baker expressly noted in floor statements that such programs would regulate activities exempted from 404 regulation by 404(f). 123 Cong. Rec. H12,963-64, S19,675 (daily ed. Dec. 15, 1977), reprinted in 1977 Legislative History, supra note 52, at 421, 524. If EPA implements § 208(b)(4)(B) in a manner consistent with this congressional intent, § 208(b)(4) dredge or fill programs would be required to regulate the activities exempted from the 404 program by § 404(f) before they can substitute best management practices for 404 permits.


289. Id. § 208(b)(4)(B)(i), (ii), (v). This is similar to the authority required of state 404 programs. See note 254 supra.
INTEGRATING THE 404 PROGRAM WITH STATE LAND AND WATER USE CONTROL PROGRAMS

Because the 404 program regulates activities as diverse as filling wetlands, discharging dredged spoil in open waters, and constructing dams, its goals can most effectively be realized if the permit program is integrated with a number of related means of controlling land and water uses. This part surveys the relationship of the 404 program with state land and water use controls and suggests mechanisms for making state regulation consistent with the goals of section 404.

A. Relationship With Land Use Controls: Obtaining Consistent Results

The 404 program is closely related to land use regulation because state and local systems of land use control often regulate areas subject to 404 permit requirements. This relationship is most often true in the case of proposed residential, commercial, and industrial developments in wetlands. Thus, 404 permit requirements are often layered on top of required state and local land use authorizations.

Concurrent federal and state jurisdiction creates many problems. Although the Corps defers to state and local decisions to some extent, the two regimes can reach inconsistent decisions about the same project. For example, a particular wetlands area might be zoned for development and a project proponent issued a state fill permit even though the activity violates 404 permit standards. Because permit requirements are cumulative, the denial of a 404 permit effectively vetoes the development. If such vetoes are frequent, political pressure to limit the 404 program may increase. Developers and states may also bring pressure against the 404 program because of the additional delay and red tape that the 404 program can add to state and local land use decisions.

The 1977 Amendments addressed this problem by authorizing states to assume 404 permit responsibilities. Partially decentralizing the 404 program may encourage the integration of the 404 program with state and local land use planning. State 404 programs are no panacea, however. Congress' refusal to authorize state programs in traditionally navigable waters and adjacent wetlands may discourage states from developing 404 programs. Also, the congressional directive that state 404 permits be subject to federal oversight will actually increase the
complexity of permit processing in many instances.\textsuperscript{293}

One way to resolve tensions between the 404 program and state and local land use control systems is to incorporate 404 permit standards into state and local decisionmaking. This resolution would help eliminate conflict between the 404 program and state and local land use determinations. It would also greatly facilitate 404 enforcement efforts by involving state and local officials in the detection and apprehension of unauthorized discharges. Although it may be unrealistic to infuse the standards contained in the 404(b) guidelines into all local zoning decisions affecting wetlands, the Federal Government could make 404 permit standards a condition for the receipt of federal funding.

Two prominent federal programs providing financial support for state and local land use planning efforts are state coastal planning grants under the Coastal Zone Management Act\textsuperscript{294} and state and local comprehensive planning grants under the Housing and Community Development Act.\textsuperscript{295} Pursuant to both programs, federal grant-in-aid money is available to assist states and localities in planning for land use activities that could affect wetlands. Under current regulations, neither program attempts to ensure that activities of its grantees will be consistent with the 404 program's standards for wetlands protection.\textsuperscript{296} As a result, the Federal Government is funding planning activities that undermine its regulatory responsibilities.\textsuperscript{297} This prospect of the federal left hand undercutting the federal right hand could be avoided if the coastal and comprehensive planning grant-in-aid regulations are revised to require the incorporation of 404 permit standards into the planning processes.\textsuperscript{298} Because of its responsibilities for overseeing the

\textsuperscript{293} See text accompanying notes 263-65 supra. State 404 programs may also be hindered by a lack of funds. See notes 271-72 supra and accompanying text.


\textsuperscript{297} For example, federal coastal planning funds have underwritten the development of a draft estuary management plan for Grays Harbor, Washington, which calls for the filling of a 250 acre area of wetlands for unspecified purposes. GRAYS HARBOR REGIONAL PLANNING COMMISSION, GRAYS HARBOR ESTUARY MANAGEMENT PLAN 46-48 (Preliminary Draft 1978). One proposed solution to the Grays Harbor situation is the use of EPA's 404(c) authority to block the filling of many of the wetlands covered by the draft plan. See notes 159-63 supra and accompanying text.

\textsuperscript{298} At a minimum, to comply with the directives of Executive Order No. 11990, see note 251 supra, these regulations should require a demonstration that no practicable alternatives exist before the planning of development activities in wetlands is permitted. Moreover, § 307(f) of the Coastal Zone Management Act, 16 U.S.C. § 1456(f) (1976), requires that state coastal zone management programs "incorporate" the "requirements" of the Clean Water Act, such as the 404(b) guidelines. See Blum, supra note 11. By infusing 404 regulatory criteria into the coastal and comprehensive planning processes, inconsistencies between federally-assisted state and local land planning efforts and federal wetlands standards can be
implementation of the 404 program,\textsuperscript{299} EPA should encourage the Department of Housing and Urban Development and the National Oceanic and Atmospheric Administration to make appropriate changes in their regulations.

Ensuring that activities under the coastal and comprehensive planning programs are consistent with 404 standards will not, however, eliminate potential conflicts with those states and localities that do not receive planning grants. In order to reconcile 404 regulation with state and local land use regulation not supported by federal funds a more comprehensive solution is needed. In this regard, EPA, in conjunction with the Corps, should initiate a study investigating the broader questions of how to eliminate conflicts between the 404 program and state and local land use controls and how best to involve states and localities in the operation of the program.\textsuperscript{300}

\textbf{B. Relationship to State Water Allocation Systems: Protecting Streamflows}

In order to divert water from streams for irrigation, domestic, industrial, and other uses, it is often necessary to construct impoundments or discharge other fill material. Consequently, 404 permits may be a prerequisite for appropriations of water for many out-of-stream uses. Since many states have established permit systems to allocate water rights, the relationship between the 404 program and state water allocation systems is an important one.

The principal question concerning the effect of the 404 program on state water allocation systems is whether and under what conditions a 404 permit can be denied to construct diversion works where the applicant has secured a state water right. Until the passage of the 1977 Amendments it was relatively clear that 404 permits could be denied or conditioned for such diversions.\textsuperscript{301} The 1977 Amendments complicate

\textsuperscript{299} See text accompanying notes 142-71 supra.

\textsuperscript{300} Such a study was suggested by Congressman Edgar during the floor debates on the 1977 Amendments to the Clean Water Act. His proposal would have authorized the Secretary of the Army, in conjunction with the EPA Administrator, and with the assistance of the Secretary of Agriculture, to study the impact of the 404 program upon agriculture, ranching, and forestry activities and to recommend mechanisms by which state and local agencies could become more directly responsible for implementing the program. 123 \textsc{Cong. Rec.} H3056 (daily ed. Apr. 5, 1977), \textit{reprinted in 1977 Legislative History, supra note 52, at 1342.}

The House rejected this provision, in part because it was tied to an effort to retain the Corps' expanded jurisdiction. \textit{Id.} at H3060 (remarks of Rep. Tucker), 1977 \textit{Legislative History, supra note 52, at 1357.}

\textsuperscript{301} Section 510(2) of the Act spoke directly to this issue: "Except as expressly provided in this chapter, nothing in this chapter shall . . . be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters . . . of such States."
the 404/water allocation relationship through a new section 101(g). Sponsored by Senator Wallop, section 101(g) provides that state allocation of water "shall not be superseded, abrogated, or otherwise impaired by this Act." Although this declaration might be construed as removing federal authority to deny or condition 404 permits where conflicts with state water allocations would result, the section's legislative history does not justify this interpretation. The House and Senate conferees inserted this provision into the policy provisions of the Act with the explanation that it was intended to clarify, not change existing law. Thus, the Conference Report sanctions intrusions on state water allocation systems where necessary to achieve Clean Water Act goals.

In interpreting the effect of section 101(g), EPA has concluded that although water quality standards, 404 and NPDES permits, and 208 water quality management plans may incidentally interfere with state water rights, they may do so only where clearly necessary to meet Clean Water Act requirements. Thus, where permit evaluation criteria require denial of 404 permits, permits must be refused regardless of

302. Clean Water Act, § 101(g), 33 U.S.C. § 1251(g) (Supp. 1 1977). This section provides:

It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated, or otherwise impaired by this chapter. It is the further policy of Congress that nothing in this chapter shall be construed to supersede or abrogate rights to quantities of water which have been established by any State. Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.

303. See 1977 CONFERENCE REPORT, supra note 52, at 52. This conclusion is supported by floor statements of its sponsor, Senator Wallop. After explaining that § 101(g) was designed to prohibit the use of the Clean Water Act programs for purposes not related to water quality, Senator Wallop stated:

This "State's jurisdiction" amendment reaffirms that it is the policy of Congress that this act is to be used for water quality purposes only. This is not intended to create a new cause of action. It is not intended to change existing law, for a similar prohibition is contained in section 510 of the act. Legitimate water quality measures authorized by this act may at times have some effect on the method of water usage. Water quality standards and their upgrading are legitimate and necessary under this act. The requirements of section 402 and 404 permits may incidentally affect individual water rights. Management practices developed through state or local 208 planning units may also incidentally effect the use of water under an individual water right. It is not the purpose of this amendment to prohibit those incidental effects.


304. Memorandum from Thomas C. Jorling, Assistant Administrator for Water and Waste Management, U.S. Environmental Protection Agency, and Joan Z. Bernstein, General Counsel, to Regional Administrators (Nov. 7, 1978) (State Authority to Allocate Water Quantities—Section 101(g) of the Clean Water Act).
effects on state-granted water rights. Just as significantly, conditions may be imposed in 404 permits despite such effects.

Permit conditions having the greatest potential effects on water allocation are those relating to the maintenance of minimum stream flows. Minimum flows are vital to fish and wildlife and can also be essential in meeting water quality standards. This fact is particularly true in the West, where water diversions for irrigation often seriously deplete streamflows. Including conditions in 404 permits to maintain stream flows would provide an effective means of mitigating the adverse effects of water development projects on fish and wildlife as well as ensuring that water quality standards are met.

The policy expressed in section 101(g) does not restrict minimum flow conditions in 404 permits where they are necessary to meet legislative and administrative water quality requirements. The Corps’ 404 regulations authorize District Engineers to condition permits to comply with the requirements of the Fish and Wildlife Coordination Act and to meet water quality standards, effluent limitations, and management practices required by the Clean Water Act. The regulations also enable District Engineers to attach conditions in order to avoid adverse impacts on historic, scenic, and recreational areas. In addition, EPA’s existing 404(b) guidelines require Corps permits to avoid significant disruptions of the chemical, physical, or biological integrity of affected ecosystems, including disruptions of normal water fluctuations.

Thus, there is ample authority upon which to base 404 permit conditions that require minimum stream flows. The Wallop Amendment does not purport to alter this authority. Moreover, conditioning or denying 404 permits on the basis of streamflow requirements may become more commonplace if EPA begins to require states to include minimum flows in their water quality standards. As part of its recently announced more aggressive approach to overseeing water quality standards, EPA noted it was considering requiring states to set minimum flows. Once established for a particular stream, these flow require-

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305. Insufficient stream flows may also become an increasing cause for concern in the East, where existing low-head dams are being eyed for retrofit with power generators to capture their hydroelectric potential. See, e.g., Public Utilities Regulatory Policies Act of 1978, § 402, 16 U.S.C.A. § 2702 (West Supp. 1979); 44 Fed. Reg. 30,278 (1979) (establishing a federal loan program to support feasibility studies of retrofitting small dams with hydroelectric generators).


307. 33 C.F.R. § 320.4(c), (d) (1979).

308. Id. § 320.4(e).


ments would govern the issuance of 404 permits, including those required for federal projects. In this manner, section 404 could generate reform in federal water resources development. EPA is preparing a report for Congress analyzing the relationship between Clean Water Act programs and state and federal systems of water allocation that may indicate how far the 404 program will go.

VIII

CONCLUSION

From its origin seven years ago as a convenient exemption from NPDES permit requirements, section 404 of the Clean Water Act has evolved into a major federal regulatory program. With the subsidence of legislative attempts to scuttle the program, the focus of attention has shifted from preserving its existence to ensuring its effective implementation. The program’s operation is complicated, however, by the numerous types of activities section 404 must regulate and by its expansive jurisdictional coverage. As a result, several federal agencies are involved in the implementation of the broad-ranging program. States and localities must also play a part, since a large part of the program regulates small, one-time discharges that are impractical for the Federal Government to monitor. Also, these small discharges closely resemble land use practices that states have more experience in regulating. Thus, the successful implementation of the 404 program must be grounded on an effective system of intergovernmental relations.

EPA must accept its role as the lead 404 agency, assuming a more prominent oversight posture than it has in the past. It must promulgate 404(b) guidelines that provide sufficiently detailed guidance to the Corps and the states so that inconsistent permit decisions are minimized. The agency should also issue criteria for making advanced

would have to be developed, and suggesting that streamflow minimums might be required by water quality standards in the future). EPA does not currently plan to adopt specific minimum flow requirements, however. For a discussion of EPA’s authority to promulgate water quality standards when it is dissatisfied with those proposed by a state, see Stream Pollution Control Bd. v. Alexander, No. IP 78-39-C, 11 ERC 1564 (S.D. Ind. May 2, 1978).

311. The 404(b) guidelines prohibit the issuance of 404 permits where water quality standards would be violated. 40 C.F.R. § 230.4-2 (1979).

312. Even where federal activities are exempted from 404 permit requirements by § 404(r), federal projects should be required to comply with state water quality standards unless specifically exempted by Congress. See notes 78-84 supra and accompanying text. See also California v. United States, 438 U.S. 645 (1978).

313. See text accompanying notes 75-77 supra.

314. The report is required by § 102(d) of the Act. EPA has issued a draft. See Water Planning Division, U.S. Environmental Protection Agency, Water Allocation/Water Quality Coordination Study (Draft Aug. 1979).

315. See text accompanying notes 143-53 supra.
determinations under section 404(c) and pursue a more aggressive enforcement policy. In addition, EPA can take actions outside the 404 program that will help accomplish its objectives. For example, it should assume control over solid waste and dredged spoil disposal and over the spillover effects of dams through its NPDES program. It should also proceed with plans to institute tighter controls over state water quality standards and study ways to reconcile conflicts between the 404 program and state land use planning.

If its heralded environmental renaissance is to have any meaning outside the pages of law reviews, the Corps of Engineers must take its 404 duties more seriously. It cannot, for example, place a higher priority on its non-statutory decentralization policy than on the promulgation of adequate 404 guidelines. Similarly, the Corps’ attempt to employ the interagency agreements required by section 404(q) to insulate District Engineers from escalation procedures casts doubt upon its resolve in fostering section 404 goals. The Corps also needs to develop uniform standards to guide the issuance of general permits by District Engineers and to monitor activities conducted pursuant to such permits. Finally, the Corps should revise its regulations to reassert 404 control over the siting of solid waste disposal facilities in wetlands and should drop its resistance to NPDES control over the spillover effects of these facilities, as well as from diked, dredged spoil areas and dams.

The Fish and Wildlife Service and National Marine Fisheries Service must secure stronger 404 roles by pursuing an aggressive approach to their Fish and Wildlife Coordination Act mandates. In addition, these agencies can make an important contribution to the successful implementation of the program by helping to increase public awareness of the myriad functions served by wetlands. If the fruit of

316. See text accompanying notes 164-69 supra.
317. See text accompanying notes 217-35 supra.
318. See note 310 supra and accompanying text. Stiffer water quality standards would effectively tighten 404 permit standards because the 404(b) guidelines require 404 permit activities to meet these standards. See note 127 supra. Stiffer standards would also allow use of 404 permits to protect stream flows. See text accompanying notes 306-14 supra.

Another way of tightening 404 permit standards would be to include dredged material among the sources subject to toxic effluent standards and prohibitions. See note 44 supra.
320. See notes 151-53 supra and accompanying text.
321. See text accompanying notes 184-86 supra.
322. See text accompanying notes 109-12 supra.
323. See text accompanying notes 195-216 supra.
324. See text accompanying notes 172-90 supra.
325. For a good example of a study aimed at providing the public with information on wetland values and the threats to the vitality of wetland ecosystems, see INTERAGENCY TASK FORCE REPORT, supra note 11.
the Fish and Wildlife Service's National Wetlands Inventory identifies particularly valuable wetland areas, this information could not only provide assistance in making 404 permit decisions, it might also prod EPA into using its long dormant authority to make advanced determinations under section 404(c). The Council on Environmental Quality could also close a potential loophole in the 404 program by revising its NEPA regulations to ensure that federal construction projects exempted from 404 permit requirements fully consider the 404(b) guidelines in environmental impact statements.

States also have an important part in the 404 program. First, states can have a significant effect on the federal program—for example, by requiring compliance with applicable water quality and coastal zone certification requirements. Second, states can play an active role in implementing 404 by instituting state 404 and 208(b)(4) programs. By pursuing these alternatives, states can have a greater impact on 404 policy and can control activities not regulated by the federal program. Finally, states need to coordinate their land use and water use planning activities with the 404 program. For water quality goals to be realized, 404 permit criteria must be infused into planning processes that affect 404 regulation.

Congress can take a number of positive steps to help ensure section 404's effective implementation. Foremost among these is providing sufficient funding levels to carry out the program, even if this means dramatic increases from the levels requested by the Carter Administration. Congress should also specifically earmark funds for states to develop and implement 404 programs in order to ensure that limited Clean Water Act appropriations are not diverted elsewhere. Finally, if state programs are successful, Congress should amend section 404 to allow states to assume exclusive permit authority over all waters subject to their jurisdiction.

Most importantly, the public must encourage these changes in institutional perspectives by maintaining a vigilant eye on the implementation of section 404. It was a citizen's suit that originally precipitated the expansion of section 404 jurisdiction. Administrative action implementing section 404 should receive close public scrutiny. The public can also help to strengthen some weak links in the 404 program by focusing attention on the issuance and operation of general permits and instituting citizen's suits where EPA, the Corps, or approved states have

326. See note 190 supra.
327. See note 72 supra and accompanying text.
328. See text accompanying notes 236-39 supra.
329. See text accompanying notes 240-89 supra.
330. See part VII supra.
331. See note 25 supra and accompanying text.
not taken enforcement action. Citizens' actions already have been instituted to compel the regulation of the spillover effects from dams and solid waste disposal in wetlands\textsuperscript{332} and may also be necessary in the case of diked, dredged spoil areas. Finally, the public must monitor court suits brought by federal and state agencies, as well as by permit applicants, to ensure that courts consistently interpret 404's jurisdiction over waters and activities. The legacy of the 404 program's early years suggests that its adolescence will require active public involvement if its regulation of hydrologic modifications is to be conducted consistent with the Clean Water Act's overriding objective of maintaining and restoring the chemical, physical, and biological integrity of the nation's waters.\textsuperscript{333}

\textsuperscript{332} See notes 198 & 231-34 \textit{supra} and accompanying text.