

Sections 9 and 10 of the Rivers and Harbors Act of 1899: Potent Tools for Environmental Protection

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"Proving again that legislative intent frequently comes to exceed even the wildest imagination of those responsible for enactment, it is ironic that as a product of a laissez-faire society, a 19th Century act is now once again the effective tool in this decade's awakening awareness of the importance of man's environment."¹

Originally enacted to protect commercial navigation and enhance maritime commerce, sections 9² and 10³ of the Rivers and Harbors Act of 1899 have become potent tools for environmental protection. Within the last decade these two sections have been effectively applied to such environmental concerns as the preservation of wetlands and the limitation of unrestricted waterfront development. The command of sections 9 and 10 is simple. Section 9 requires a permit from the Corps of Engineers for the construction of any bridge, dam, dike, or causeway in or over any navigable water of the United States.⁴ Section 10 bars

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1. *United States v. Joseph G. Moretti, Inc. (Moretti I)*, 478 F.2d 418, 420 (5th Cir. 1973).

2. 33 U.S.C. § 401 (1970).

3. *Id.* § 403.

4. Section 9 reads in full as follows:

It shall not be lawful to construct or commence the construction of any bridge, dam, dike, or causeway over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States until the consent of Congress to the building of such structures shall have been obtained and until the plans for the same shall have been submitted to and approved by the Chief of Engineers and by the Secretary of the Army: *Provided*, That such structures may be built under authority of a legislature of a State across rivers and other waterways the navigable portions of which lie wholly within the limits of a single State, provided the location and plans thereof are submitted to and approved by the Chief of Engineers and by the Secretary of the Army

any unauthorized obstruction to the navigable capacity of "any of the waters of the United States,"⁵ and makes it unlawful to excavate or fill "or in any manner to alter or modify" any navigable water without Corps approval.⁶ The thrust of these provisions is to vest in the Corps tremendous power to regulate development in and around navigable waters.⁷

Three factors have contributed to the recent development of the Rivers and Harbors Act as an environmental statute. First, the jurisdiction of the Corps has been judicially and administratively defined to include ecologically vital coastal wetlands. Second, the congressional directives contained in the Fish and Wildlife Coordination Act⁸ and the National Environmental Policy Act (NEPA)⁹ have changed the focus of the Corps' permit program to include consideration of environmental and public-interest factors. Finally, courts have become increasingly receptive to enforcement actions brought by private litigants against violators of sections 9 and 10. This Comment will analyze the scope of sections 9 and 10 through examination of their legislative, judicial, and administrative history, and will demonstrate how the two sections contribute to environmental protection of the nation's waterways.

before construction is commenced: *And provided further*, That when plans for any bridge or other structure have been approved by the Chief of Engineers and by the Secretary of the Army, it shall not be lawful to deviate from such plans either before or after completion of the structure unless the modification of said plans has previously been submitted to and received approval of the Chief of Engineers and of the Secretary of the Army.

33 U.S.C. § 401 (1970).

5. 33 U.S.C. § 403 (1970).

6. Section 10 reads in full as follows:

The creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or inclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army prior to beginning the same.

33 U.S.C. § 403 (1970).

7. The types of activities regulated by sections 9 and 10 differ from those regulated by the Refuse Act, section 13 of the Rivers and Harbors Act, 33 U.S.C. § 407 (1970), and the Federal Water Pollution Control Act, 33 U.S.C. § 1251 *et seq.* (Supp. V, 1975). Sections 9 and 10 concern structures, dredge and fill projects, and obstructions to navigable capacity. The Refuse Act and FWPCA regulate the discharge of contaminants into navigable waters. This Comment will not deal with either the Refuse Act or FWPCA.

8. 16 U.S.C. §§ 661-64 (1970).

9. 42 U.S.C. § 4321 *et seq.* (1970).

I

LEGISLATIVE HISTORY

Legislative history is the starting point in understanding the evolution of the use of sections 9 and 10. The legislative history reveals that the Rivers and Harbors Act was enacted for the purpose of protecting commercial navigation and enhancing maritime commerce. A study of the legislative history alone furnishes little evidence that sections 9 and 10 are now such potent tools for protecting the environment.

A. Evolution of the Rivers and Harbors Act of 1899

Sections 9 and 10 had their genesis in two sections of the Rivers and Harbors Act of 1890.¹⁰ The 1890 Act was the first general federal legislation designed to protect navigable waters.¹¹ Constitutional authority for this protective legislation rested in the Commerce Clause.¹² Two important nineteenth century Supreme Court decisions established the principle that the federal power to regulate commerce comprehends the power to keep navigable waters open and free from obstructions.¹³

Two factors stimulated Congress to enact the 1890 legislation. One was the Supreme Court's holding in *Williamette Iron Bridge Co. v. Hatch*¹⁴ that the federal government has no common law authority to protect navigable waters from obstructions. The other was a growing recognition of the need to protect waterways from trespass and obstruction.¹⁵ Although Congress had appropriated substantial sums throughout the nineteenth century for improving rivers and harbors, it had overlooked the equally important task of keeping the nation's waterways open and unobstructed.

While a broad and systematic policy of river and harbor development was early adopted and pursued uninterruptedly in the succeeding years, it seems not to have occurred to the legislative mind that protection of waterways from trespass and obstruction was as vital and important as improvement.¹⁶

10. Act of Sept. 19, 1890, ch. 907, §§ 7 & 10, 26 Stat. 454. Section 7 was slightly amended by the Act of July 13, 1892, ch. 158, § 3, 27 Stat. 110.

11. R. Druly, *The Refuse Act of 1899*, ENV. RPTR.—MONOGRAPHS No. 11, at 2 (1972).

12. U.S. CONST. art. I, § 8.

13. *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 190 (1824); *Gilman v. Philadelphia*, 70 U.S. (3 Wall.) 713, 725 (1866).

14. 125 U.S. 1, 8 (1888).

15. H.R. REP. NO. 477, 51st Cong., 1st Sess. 1 (1890).

16. Lecture by Judge G.W. Koonce, Federal Laws Affecting River and Harbor Works, Company Officer Class, The Engineer School, Ft. Humphreys, Va., Apr. 23, 1926, in *Hearings on Water Pollution Control Legislation—1971 (Oversight of Existing Programs) Before the House Comm. on Public Works*, 92d Cong., 1st Sess. 286 (1971).

By the late 1880's it became clear that states and private parties were undermining the federal rivers and harbors improvement program by placing obstructions in improved waterways without regard for the effect of the obstructions on navigability. There was a pressing need for federal legislation to prevent the obstruction of navigable waters and to protect public works against injury.

In the meantime, while the Government was expending hundreds of millions of dollars to increase the facilities of navigation, interested parties, including States, Corporations and individuals, were placing obstructions and impediments of all kinds in and across the improved waterways. The necessity for Federal legislation to protect these waterways from impairment and ultimate destruction eventually became urgent.¹⁷

The 1890 legislation permitted the Secretary of War to regulate, through the granting of permits, construction activities in navigable waters. The Secretary's permission was required for the construction of structures or for work in navigable waters which would obstruct or impair navigation and for any modification of navigable waters such as dredging and filling.¹⁸ It was a poorly drafted statute, though, because it failed to outline clearly the delegation of authority over navigable waters from Congress to the Secretary of War.¹⁹ The law was particularly ambiguous regarding the Secretary's authority to approve projects in and over navigable interstate waters.²⁰

In 1896, Congress directed the Secretary of War to compile all federal laws for the maintenance, protection, and preservation of navigable waters, and to submit the compilation to Congress along with such recommended revisions and amendments as he believed would be most advantageous to the public interest.²¹ The Corps of Engineers submit-

[hereinafter cited as Koonce Lecture]. Judge Koonce was with the Army Corps of Engineers from 1886 through 1926.

17. *Id.* at 287.

18. Act of Sept. 19, 1890, ch. 907, § 7, 26 Stat. 454, as amended by Act of July 13, 1892, ch. 158, § 3, 27 Stat. 110.

19. Koonce Lecture, *supra* note 16, at 287; Brief in re revision and amendment of section 7 of the Act of September 19, 1890, as amended by section 3 of the Act of July 13, 1892, at 2 (1897). The Corps of Engineers submitted the brief to Congress in 1897 along with a compilation of existing laws relating to protection of navigable waters and a proposed act amending and revising those laws. See text accompanying note 22 *infra*. This brief is on file in the library of the Lands and Natural Resources Division of the Department of Justice as part of the legislative history of the Rivers and Harbors Act of 1899. Copies may be obtained through the digest-facsimile service of the Environmental Law Institute: ELR Dig. [12], doc. D.

20. This point is analyzed in detail in Comment, *Dikes and Causeways in Navigable Waters: The Rivers and Harbors Act of 1899 and Its Conflicting Interpretation in Citizens Committee for the Hudson Valley v. Volpe and Petterson v. Resor*, 2 ELR 10019, 10022-23 (1972).

21. Act of June 3, 1896, ch. 314, § 2, 29 Stat. 234.

ted a compilation of existing laws and a proposed act "revising and enlarging laws for protection of navigable waters" to Congress in 1897.²² As part of the proposed legislation, the Corps drafted two new statutory provisions—which eventually were enacted as sections 9 and 10 of the Rivers and Harbors Act of 1899—to clarify federal jurisdiction over navigable waters.

Congress considered the proposed legislation in 1899 as part of that year's rivers and harbors appropriations bill. The sponsors of the legislation generally believed it to be no more than a restatement of existing law. In the Senate discussion on the bill, Senator Frye claimed the new Act was simply a "compilation," and that there were "not ten words changed in the entire thirteen sections" from existing statutes.²³ The House conference report described the bill as "a codification of existing laws pertaining to rivers and harbors, though containing no essential changes in existing law."²⁴ The bill was enacted without fanfare or controversy as sections 9 to 21 of the Rivers and Harbors Act of 1899.

B. *The New Rivers and Harbors Act of 1899*

Although the sponsors believed otherwise, sections 9 and 10 of the 1899 Act do more than simply restate the law as it existed in 1899. For example, under section 9 of the 1899 Act, congressional consent is required for the construction of dams, dikes, causeways, and bridges in or over navigable waters,²⁵ while under the 1890 legislation congressional consent was required only for the construction of bridges.²⁶ Further, unlike the 1890 legislation, the 1899 Act sets out several categories of projects and requires different levels of governmental approval for each category. Section 9 applies to dams, dikes, causeways, and bridges; these projects may not be built without legislative authorization and administrative approval by the Chief of Engineers and the Secretary of the Army.²⁷ Section 10 applies to wharves, piers, breakwaters, dredge and fill operations, and other modifications of navigable waters; these projects require only administrative approval by the Chief of Engineers and the Secretary of the Army.²⁸ Section 10

22. H.R. Doc. No. 293, 54th Cong., 2d Sess. (1897).

23. 32 CONG. REC. 2297 (1899) (remarks of Senator Frye).

24. *Id.* at 2923.

25. 33 U.S.C. § 401 (1970). For the entire text of section 9 of the 1899 Act, see note 4 *supra*.

26. Act of Sept. 19, 1890, ch. 907, § 7, 26 Stat. 454, *as amended by* Act of July 13, 1892, ch. 158, § 3, 27 Stat. 110.

27. 33 U.S.C. § 401 (1970).

28. *Id.* § 403. For the entire text of section 10 of the 1899 Act, see note 6 *supra*.

also prohibits any obstruction to the navigable capacity of waters of the United States unless Congress affirmatively authorizes the obstruction.²⁹

The most significant difference between sections 9 and 10 of the 1899 Act and their precursors concerns the fact that, under the 1890 legislation, the federal government could regulate the construction of a structure in navigable waters only if the structure would actually "obstruct or impair navigation, commerce, or anchorage."³⁰ No such qualification appears in the 1899 Act. Consequently, a project described in section 9 or 10 requires prior authorization by the federal government regardless of whether it will actually obstruct or impair navigation. This difference has had significant implications for the recent development of sections 9 and 10 as legal weapons to protect the environment. Because Congress did not limit the applicability of the two sections to projects which actually obstruct or impair navigation, the federal government now can use its permit authority under the two sections to prevent the construction of projects which adversely affect the environment.³¹

The legislative history of the Rivers and Harbors Act of 1899 demonstrates that Congress' purpose in enacting the law was to protect the navigability of waterways and to enhance maritime commerce. There is no evidence to suggest the drafters intended the Rivers and Harbors Act as a means of addressing other problems such as conservation of natural resources. Nonetheless, the law which Congress enacted in 1899 has a broad reach and extends to projects which do not inhibit or obstruct navigation.³² Judge G. W. Koonce, who was with the Corps of Engineers from 1886 through 1926 and played a major role in drafting the 1899 Act, underscored the expansive scope of the law with the following remarks made in 1926:

It was intended to be, and is, an assertion of police power to protect from physical injury those highways of commerce in which the Federal Government has dominion and propriety, and within its comprehensive provisions are embraced all forms and varieties of physical obstructions. An examination and study of the law will impress anyone with the organic and far reaching character of the jurisdiction asserted, and with its evident value both as a preventive and remedial measure.³³

The courts have endorsed this broad reading of the scope of the Rivers

29. *Id.*

30. Act of Sept. 19, 1890, ch. 907, § 7, 26 Stat. 454, as amended by Act of July 13, 1892, ch. 158, § 3, 27 Stat. 110.

31. See text accompanying notes 150-88 *infra*.

32. *Zabel v. Tabb*, 430 F.2d 199, 1 ERC 1449 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).

33. Koonce Lecture, *supra* note 16, at 288.

and Harbors Act. Although they might have interpreted sections 9 and 10 solely on the basis of legislative history, they have, as will be seen, permitted the two sections to be used for purposes in addition to the protection of navigation. The courts' willingness to permit sections 9 and 10 to be used for other purposes has played a large role in the development of the Rivers and Harbors Act as an environmental statute.

II

FEDERAL JURISDICTION UNDER SECTIONS 9 AND 10

To understand how sections 9 and 10 can be used as tools to protect the environment, it is necessary to examine the scope of federal jurisdiction under the two sections. The following discussion begins by considering the types of waters subject to federal regulation and the geographic extent of federal authority over those waters. Beginning with the statutory phrase "navigable waters of the United States," judicial and administrative interpretation has extended federal jurisdiction to unexpected dimensions, making the Rivers and Harbors Act available for the protection of ecologically-vital wetlands that do not actually support navigation. The discussion then examines the broad range of activities that have come to be encompassed under section 10 as "obstructions to navigable capacity." The discussion concludes with an analysis of the criteria currently employed by the Corps of Engineers in reviewing permit applications. It will be seen that the Corps has broad power to use its permit authority to protect public waters from environmental harm.

A. The Meaning of "Navigable Waters of the United States"

The question of which waterways are subject to federal regulation is a fundamental jurisdictional issue raised by sections 9 and 10. Federal jurisdiction is defined in these two sections in terms of "navigable waters of the United States."³⁴ The legal definition of navigability was given considerable attention many years before Congress enacted the Rivers and Harbors Act. At common law, the phrase "navigable waters" connoted a waterway's physical capacity to bear commerce. One of the earliest tests of navigability was framed by the Supreme Court in *The Daniel Ball*:³⁵

Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition,

34. 33 U.S.C. §§ 401, 403 (1970).

35. 77 U.S. (10 Wall.) 557 (1870).

as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.³⁶

In the years since *The Daniel Ball*, the courts have broadened this definition considerably, developing a three-part test of navigability that turns on past, present, or future commercial use. The prevailing doctrine of navigability characterizes a waterway as a navigable water of the United States if, for the purpose of interstate commerce, (1) it presently is being used or is suitable for use, or (2) it has been used or was suitable for use in the past, or (3) it could be made suitable for use in the future by reasonable improvements.³⁷ The Corps of Engineers' definition of navigable waters of the United States is consistent with this past, present, and future use test.³⁸

1. Required Form of Commercial Use

Use in interstate commerce is a fundamental requisite to a waterway's being considered a navigable water of the United States. This requirement stems from the Commerce Clause of the Constitution, which permits Congress "[t]o regulate Commerce . . . among the several States. . . ."³⁹ Provided the waterway can be used for purposes of interstate transportation or commerce, the manner or form of use is immaterial.⁴⁰ In *United States v. Appalachian Electric Power Co.*,⁴¹ the Supreme Court recognized that the forms and extent of commercial activity on a waterway vary greatly and depend on "[t]he character of the region, its products and the difficulties or dangers of the navigation."⁴² In *Appalachian*, for example, sufficient commerce was shown by the historical use of canoes, bateaux, and other frontier craft.⁴³ The

36. *Id.* at 563.

37. *Rochester Gas & Elec. Corp. v. Fed. Power Comm'n*, 344 F.2d 594, 596 (2d Cir. 1965), *cert. denied*, 382 U.S. 832 (1965).

38. 33 C.F.R. § 209.260(c) (1976):

Navigable waters of the United States are those waters which are presently, or have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce.

The definition should be distinguished from the definition of "navigable waters" which is used for purposes of section 404 of the Federal Water Pollution Control Act. See 33 C.F.R. § 209.120(d)(2) (1976). An excellent analysis of these FWPCA regulations and their background is contained in Comment, *Wetlands Protection Under the Corps of Engineers' New Dredge and Fill Jurisdiction*, 28 HASTINGS L.J. 223 (1976). See also Haines, *Wetlands' Reluctant Champion: The Corps Takes a Fresh Look at "Navigable Waters"*, 6 ENVIRONMENTAL L. 217 (1975).

39. U.S. CONST. art. I, § 8.

40. *The Montello*, 87 U.S. (20 Wall.) 430, 441 (1874).

41. 311 U.S. 377 (1940).

42. *Id.* at 409.

43. *Id.* at 414-16. See also *Economy Light & Power Co. v. United States*, 256 U.S. 113, 117 (1921). The river held navigable in that case had been used in the early fur-trading days by canoes and other boats "having light draft."

transportation of logs in connection with a commercial venture also has been recognized as evidence of a river's legal navigability.⁴⁴

2. *Prior Use: The Doctrine of Continuing Navigability*

The prevailing doctrine of navigability holds that a water which was navigable at some time in the past retains its character as "navigable in law" even though it is not presently used for commerce.⁴⁵ This basic principle of "continuing navigability" was established by the Supreme Court in *Economy Light & Power Co. v. United States*.⁴⁶ In *Economy*, the United States had invoked section 9 of the Rivers and Harbors Act to prevent the construction of a dam in the Des Plaines River without a permit from the Secretary of the Army. The power company contended that the river was no longer a navigable water because navigation was obstructed by a number of dams previously constructed downstream. After finding that the river once had been a key route in the region's fur trade and transportation of supplies to settlers, the Court rejected the argument that the river's legal status was extinguished because it was no longer navigable:

The fact, however, that artificial obstructions exist capable of being abated by due exercise of the public authority, does not prevent the stream from being regarded as navigable in law, if, supposing them to be abated, it be navigable in fact in its natural state.⁴⁷

Later in its opinion, the Court noted: "we cannot limit [section 9's] prohibition to such navigable waters as were, at the time of its passage, or now are, actually open for use."⁴⁸

The doctrine of continuing navigability is predicated on the rule that Congress has the constitutional power to preserve navigable waters for later use.⁴⁹ As the Supreme Court noted in *Economy*, the fact that a waterway once has been utilized as a highway for interstate commerce is significant evidence that, with reasonable improvements, it may serve that purpose again.⁵⁰ The principle that waters once navigable remain subject to federal regulation has been reaffirmed by the Supreme Court⁵¹ and followed by the lower federal courts.⁵² Nearly twenty years

44. *St. Anthony Falls Water Power Co. v. St. Paul Water Comm'rs*, 168 U.S. 349 (1897). See also 33 C.F.R. § 209.260(e)(1) (1976).

45. *Economy Light & Power Co. v. United States*, 256 U.S. 113, 123-24 (1921); *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 408 (1940); 33 C.F.R. § 209.260(h)(1) (1976).

46. 256 U.S. 113 (1921).

47. *Id.* at 118.

48. *Id.* at 124.

49. *Id.* at 123.

50. *Id.* at 124.

51. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 408 (1940).

52. *E.g.*, *United States v. United States Steel Corp.*, 482 F.2d 439, 453 (7th Cir.

after it decided *Economy*, the Supreme Court held that "when once found to be navigable, a waterway remains so."⁵³ The concept of continuing navigability is embodied in the Corps of Engineers' regulations defining navigable waters of the United States.⁵⁴

From an environmental standpoint, the most important purpose served by the doctrine of continuing navigability is the protection of wetlands.⁵⁵ Many wetland areas would be without federal protection were it not for this doctrine; they are navigable waters of the United States only because they are part of water bodies which once were used for interstate commerce. Because of the doctrine of continuing navigability, such wetland areas may not be filled or otherwise altered without the prior approval of the Corps of Engineers under the Rivers and Harbors Act.⁵⁶ This principle has played a key role in litigation to protect existing wetlands.⁵⁷

a. Use of the doctrine to protect obstructed wetlands: Leslie Salt

Another application of the doctrine of continuing navigability is that an obstructed area—one which is cut off from a navigable waterway—remains subject to federal regulation.⁵⁸ This rule faced a stiff challenge in a recent case involving thousands of acres of marshland in

1973), *cert. denied*, 414 U.S. 909 (1973); *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096, 1103 (N.D. Cal. 1976); *United States v. Kaiser Aetna*, 8 ERC 1741, 1745 (D. Hawaii 1976); *United States v. Lewis*, 355 F. Supp. 1132, 1139, 5 ERC 1198, 1202 (S.D. Ga. 1973).

53. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 408 (1940).

54. 33 C.F.R. § 209.260(c) (1976).

55. For the purposes of this Comment, the term "wetlands" includes marshlands, estuaries, sloughs, and similar types of water bodies.

56. A controversial bill which, if enacted, could have called into question the validity of this assertion, was introduced during the last session of Congress as an amendment to section 404 of the Federal Water Pollution Control Act. S. 2710, 94th Cong., 2d Sess. (1976). Section 16 of the bill, the so-called "Wright Amendment," provided that "the discharge of dredged and fill material in waters other than navigable waters or adjacent wetlands is not prohibited or otherwise subject to regulation under" FWPCA or sections 9 and 10 of the Rivers and Harbors Act. The bill defined navigable waters in terms of present and future use, while excluding from the definition the prior use element which historically has been part of the definition. In other words, the bill did not recognize the doctrine of continuing navigability. Although the bill was poorly drafted and it was not clear precisely what effect its passage would have on the protection of wetlands, environmental groups were strongly opposed to it. The Wright Amendment passed the House by a vote of 234-121 on June 3, 1976, but was defeated in the Senate by a vote of 40-39 on Sept. 1, 1976. 7 ENV. RPTR.—CURR. DEV. 222, 675 (1976). House and Senate conferees were unable to agree on the bill prior to Congress' adjournment. *Id.* at 836-37.

57. Statement of Peter R. Taft, Assistant Attorney General, Land and Natural Resources Division, Dep't of Justice, before the Senate Comm. on Public Works, July 27, 1976, at 28. Mr. Taft spoke against the Wright Amendment in the Senate hearings. Copies of the statement are available from Mr. Taft's office.

58. *Economy Light & Power Co. v. United States*, 256 U.S. 113, 118 (1921).

San Francisco Bay. In *Sierra Club v. Leslie Salt Co.*,⁵⁹ a federal district court considered whether the construction of dikes in the Bay had removed the diked areas from the navigable waters of the United States. The dikes, built to enclose salt evaporation ponds, had been in place for many years. Leslie had not obtained permits for construction of the dikes. The question before the court was whether the Corps of Engineers now could require a permit for the filling of land in the diked areas. Leslie contended that the federal government had lost all regulatory authority, since the diked areas no longer were part of the navigable waters of the United States. The court concluded, however, that the diked areas were still within the jurisdiction of the Corps of Engineers under the Rivers and Harbors Act. Comparing Leslie's dikes to artificial obstructions capable of being abated by due exercise of the public authority as in *Economy*, the court reasoned that the property would return to its former natural condition of daily tidal inundation if the dikes were broken.⁶⁰ Therefore, the diked areas remained a part of the navigable waters of the United States.

Leslie Salt is of major significance for environmentalists generally and particularly for those concerned with the preservation of San Francisco Bay. A richly productive estuarine environment, the Bay and its marshlands constitute an important resting and feeding area for many species of wildlife, including waterfowl, and provide outstanding outdoor recreational opportunities.⁶¹ Ocean tidal action traps nutrients from fresh water run-off in shallow areas to make the estuary a biologically productive area. Salt marsh plants found in this estuarine area possess several times the food value of an equivalent acreage of wheat. Large quantities of decomposed marsh plants serve as the basic food source for zooplankton, which in turn are a major food source for water-distillation organisms, such as oysters and clams, and for fish.⁶²

Despite its widely recognized ecological importance, the Bay faces an environmental crisis. In the past century, extensive diking and filling operations have reduced greatly the Bay's water area and shoreline. Bay waters, which in 1850 covered 680 square miles (435,000 acres), now cover only 400 square miles (256,000 acres). 340 miles of Bay shoreline have dwindled to 276 miles, of which only 10 miles remain open to the public. The ecologically-vital marshlands of a century ago have been drastically reduced to less than one-third of their

59. 412 F. Supp. 1096 (N.D. Cal. 1976).

60. *Id.* at 1103.

61. As many as 100 species of water birds and migratory waterfowl use the Bay as their home. HOUSE COMM. ON GOV'T OPERATIONS, PROTECTING AMERICA'S ESTUARIES: THE SAN FRANCISCO BAY AND DELTA, H.R. REP. NO. 1433, 91st Cong., 2d Sess. 72 (1970).

62. *Id.* at 71-72.

former size.⁶³ Reduction of the Bay's water area has had several major adverse consequences. First, filling has destroyed the habitat of fish and wildlife, disrupting the ecological balance in the Bay. Second, filling and diking have diminished the Bay's ability to disperse and flush out water pollutants. Third, filling has reduced the air-conditioning effects of the Bay and increased the danger of air pollution in the Bay Area.⁶⁴

The *Leslie Salt* litigation represented an attempt to halt the indiscriminate development of San Francisco Bay. At the time the suit was brought by the Sierra Club, Leslie had active plans to fill and develop some of its diked wetland property.⁶⁵ As land values rise, pressures on Leslie and other owners of diked lands in the Bay to fill and develop their property undoubtedly will increase. If the *Leslie Salt* decision is upheld on appeal,⁶⁶ none of these owners will be able to develop their lands until the Corps of Engineers decides that development is in the public interest and issues the required permits under the Rivers and Harbors Act.⁶⁷ *Leslie Salt* constitutes an important precedent not only for San Francisco Bay, but for other estuaries and wetlands as well. The decision confirms that the Corps of Engineers may regulate the development of obstructed wetland areas even though it may not have required a permit for the obstruction itself. It further suggests a practical way in which the Rivers and Harbors Act can be utilized to achieve ecologically desirable results.

b. Stoeco Homes: a contradictory view?

One case which might appear to contradict *Leslie Salt* is *United States v. Stoeco Homes, Inc.*⁶⁸ On first glance the case seems to hold that the doctrine of continuing navigability has no application to an obstructed area once the Corps has failed to require a permit for the obstruction. Closer examination reveals that the case does not so hold.

63. *Id.* at 4.

64. *See id.* at 16-17, 100-01.

65. Interview with John D. Hoffman, Sierra Club Legal Defense Fund, Inc., Feb. 3, 1976. Mr. Hoffman was one of the attorneys representing the Sierra Club in the litigation.

66. The district court's decision has been appealed to the Court of Appeals for the Ninth Circuit. *Appeal docketed*, No. 76-2414, 9th Cir., June 30, 1976; No. 76-2696, 9th Cir., June 30, 1976.

67. Before the Corps can grant a section 9 or section 10 permit, its regulations require it to consider the environmental impacts of the proposed project and grant the permit only upon a showing that the proposed project will be in the public interest. The criteria used by the Corps are reviewed in detail in the text accompanying notes 180-88 *infra*.

68. 498 F.2d 597, 6 ERC 1757 (3d Cir. 1974), *cert. denied*, 420 U.S. 927 (1975).

It is necessary to analyze *Stoeco Homes* carefully to understand what, if any, ramifications the case has for the federal protection of wetlands under the Rivers and Harbors Act.

The case involved a 1972 attempt by a United States Attorney to assert section 10 jurisdiction over a New Jersey waterfront lagoon/residential development. Part of the area in controversy had been, until 1927, a salt water marsh. In 1927, Stoeco's predecessor in title had filled parts of the marsh to a point above the water surface of the marsh. By 1972, when the action was brought by the federal government, the filled lands were "fast" and covered with homes, streets, and other improvements. The government's position was that the lands had been filled illegally without a permit from the Corps of Engineers. The government contended that the filled land, because it formerly had been subject to inundation by tidal waters, was perpetually subject to the regulatory jurisdiction of the United States.⁶⁹

The Court of Appeals for the Third Circuit disagreed, basing its decision on the Corps' consent to the fill under the agency's "harbor line" regulations.⁷⁰ Prior to 1970, it was the Corps' established policy not to require Rivers and Harbors Act permits for construction landward of existing harbor lines.⁷¹ In 1970, the Corps amended its harbor line regulations to provide that all future construction landward of existing harbor lines would require permits under the Rivers and Harbors Act.⁷² Work completed or commenced before the date of the amended regulations was exempt from the Act's permit requirements under a grandfather clause.⁷³

The Third Circuit found that the fill had been constructed shoreward of the harbor lines in existence in the marsh in 1927 and therefore was legal. In the court's view, the Corps had given a "blanket consent" to the construction by the terms of its harbor line regulations and had surrendered its regulatory authority over the filled area in 1927.⁷⁴ The thrust of the court's opinion was unmistakable: when the government grants permission for the filling of navigable waters under its own regulations, it cannot later argue under new regulations that the filling was illegal or that it retains jurisdiction over further work in the filled area.

69. *Id.* at 605, 6 ERC at 1762.

70. The Secretary of the Army has the authority to establish harbor lines under section 11 of the Rivers and Harbors Act. 33 U.S.C. § 404 (1970).

There are two types of harbor lines: (1) pierhead lines, to mark the limits of open-pile work, and (2) bulkhead lines, to mark the limits of solid-fill construction.

71. 498 F.2d at 602-03, 6 ERC at 1760. See 33 C.F.R. § 209.150 (1969).

72. 33 C.F.R. § 209.150(b) (1976).

73. *Id.* § 209.150(b)(2).

74. 498 F.2d at 610-11, 6 ERC at 1765-66.

Although the *Stoeco Homes* opinion is not pellucid, the case is not inconsistent with the basic doctrine of continuing navigability. Because the court emphasized the importance of the Corps' consent to the fill, the decision left intact the proposition that a water navigable at some time in the past retains its character as "navigable in law" even though it is not presently used for commerce. At most, the decision indicates that when land becomes "fast" with the explicit or implicit consent of the Corps, the agency may not assert its jurisdiction to require permits for further construction on that land. As the district court indicated in *Leslie Salt*, *Stoeco Homes* does not apply to obstructed wetland property which would be subject to tidal action if the obstruction were removed.⁷⁵ Consequently, *Stoeco Homes* should have no effect on the Corps of Engineers' efforts to assert jurisdiction over valuable wetland areas.

3. *Potential for Future Use as a Test of Navigability*

The tests of legal navigability discussed thus far turn on evidence of a waterway's past or present use for purposes of interstate commerce. What about a river or stream which has never sustained any semblance of interstate commercial activity? The final test of legal navigability looks to a waterway's potential for supporting interstate commerce in the future. A river or stream which meets this "future use" test falls within the definition of navigable waters of the United States even though it has never been used for purposes of interstate commerce. This test can be satisfied in either of two ways. First, if a waterway in its natural condition is capable of supporting some form of interstate commerce, it meets the future use criterion of legal navigability.⁷⁶ Second, if "reasonable improvements" could at some time transform the waterway into a useful avenue for interstate traffic, the waterway similarly is considered legally navigable for purposes of federal regulation.⁷⁷ The im-

75. 413 F. Supp. 1096, 1103 (N.D. Cal. 1976).

76. *The Montello*, 87 U.S. (20 Wall.) 430, 441 (1874); *The Daniel Ball*, 77 U.S. (10 Wall.) 557, 563 (1870); *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 407-08, 416 (1940); 33 C.F.R. § 209.260(h)(2) (1976). Cf. *United States v. Utah*, 283 U.S. 64, 82 (1931):

The extent of existing commerce is not the test. The evidence of the actual use of streams, and especially of extensive and continued use for commercial purposes, may be most persuasive, but where conditions of exploration and settlement explain the infrequency or limited nature of such use, the susceptibility to use as a highway of commerce may still be satisfactorily proved.

77. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 407-08 (1940); *Rochester Gas & Elec. Corp. v. Fed. Power Comm'n*, 344 F.2d 594, 596 (2d Cir. 1965), cert. denied, 382 U.S. 832 (1965); *United States v. Cannon*, 363 F. Supp. 1045, 1050, 5 ERC 1839, 1842 (D. Del. 1973); *United States v. Underwood*, 344 F. Supp. 486, 492, 4 ERC 1305, 1309 (M.D. Fla. 1972); *United States v. Crow, Pope & Land Enterprises, Inc.*, 340 F. Supp. 25, 33, 35, 4 ERC 1382, 1387-89 (N.D. Ga. 1972). The constitutional basis for this view rests in the broad federal power over commerce.

provements need not exist, be planned, nor even authorized; it is enough that potentially they could be made.⁷⁸

The courts have given little attention to defining "reasonable" in the context of navigational improvements. Aside from characterizing the question as a "matter of degree" and advocating "a balance between cost and need at a time when the improvement would be useful,"⁷⁹ the courts have furnished no practical common-sense guidelines to aid in evaluating the reasonableness of an improvement.⁸⁰ Given the fact that black-letter rules have not emerged on this subject, it is difficult to predict what a court is likely to do in a particular case. It must be emphasized, though, that when the Supreme Court established the reasonable improvement standard in the *Appalachian* case, it did so in the context of a broad and expansive reading of the commerce power. Courts should remember this fact when asked to apply the reasonable improvement standard to navigational improvements. Consequently, unless a particular waterway poses no likelihood of ever being used for purposes of interstate commerce, it should be regarded as navigable in law and subject to regulation by the federal government.

4. Artificial Waterways

An artificial waterway, even one which is privately developed and maintained, may be a navigable water of the United States.⁸¹ The courts generally have taken the position that, for regulatory purposes, there is no practical difference between artificial and natural waters.⁸²

Improvements make applicable to a waterway the existing power over commerce. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 409 (1940).

78. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 408 (1941); *Pennsylvania Water & Power Co. v. Fed. Power Comm'n*, 123 F.2d 155, 158 (D.C. Cir. 1941), cert. denied, 315 U.S. 806 (1942); 33 C.F.R. § 209.260(g)(2) (1976).

79. *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 407-08 (1940).

80. See *Pitship Duck Club v. Town of Sequim*, 315 F. Supp. 309 (W.D. Wash. 1970), for one application of the "reasonable improvement" approach (\$150,000 cost of deepening lagoon unreasonable since there would be no demand for the property for 20-25 years).

Corps of Engineers regulations identify some of the factors taken into consideration in evaluating the reasonableness of an improvement. 33 C.F.R. § 209.260(g)(2) (1976).

81. The artificial waterway may be a major portion of a river or harbor area or merely a minor backwash, slip, or turning area. 33 C.F.R. § 209.260(g)(1)(ii) (1976).

82. See, e.g., *The Robert W. Parsons*, 191 U.S. 17, 26-27 (1903):

The only distinction between canals and other navigable waters is that they are rendered navigable by artificial means, and sometimes, though by no means always, are wholly within the limits of a particular State. We fail to see, however, that this creates any distinction in principle. They are usually constructed to connect waters navigable by nature, and to avoid the portage of property from one navigable lake or river to another; or to improve or deepen a natural channel; and they are usually navigated by the same vessels which ply between the naturally navigable waters at either end of the canal. . . .

As with natural waters, an artificial waterway is regarded as navigable in law if it is capable of use for purposes of interstate commerce.⁸³ This rule has been applied to hold private artificially created canals, open to navigable waters at one or both ends, subject to federal regulation.⁸⁴ Private ownership of the lands underlying an artificial waterway, or of the lands through which it runs, does not in itself preclude a finding of navigability.⁸⁵ Ownership does become a controlling factor if a privately constructed and operated waterway is landlocked and is not used for purposes of interstate commerce; the waterway is then not considered to be a navigable water of the United States.⁸⁶

B. Geographic and Territorial Jurisdiction

We have seen that sections 9 and 10 define federal jurisdiction in terms of navigable waters of the United States. Although a good deal of case law has been devoted to defining the operational component of navigability, far less attention has been paid to establishing the geographic scope of regulatory authority. The chief question in this area concerns the lateral or shoreward boundary of the Corps of Engineers' jurisdiction in coastal areas under sections 9 and 10.⁸⁷ Because the areas at issue are environmentally sensitive and valuable coastal marshes and tidelands, precise delineation of the line between navigable waters and areas not subject to regulation becomes quite important.

Indeed, most of the harbors upon the lakes and the Atlantic coast are made accessible by canals wholly artificial, or by an artificial channel broadening and deepening their natural approaches.

See also *United States v. Kaiser Aetna*, 8 ERC 1741, 1748 (D. Hawaii 1976), where the court noted that the federal government's interest in the quantity and safety of commercial traffic moving in interstate commerce is as strong with respect to artificial channels as it is with respect to natural waters.

83. *Weiszmann v. District Engineer, U.S. Army Corps of Engineers*, 526 F.2d 1302, 1305, 8 ERC 1663, 1665 (5th Cir. 1976); 33 C.F.R. § 209.260(g)(1)(i) (1976).

84. *Weiszmann v. District Engineer, U.S. Army Corps of Engineers*, 526 F.2d 1302, 1305, 8 ERC 1663, 1665 (5th Cir. 1976); *United States v. Sexton Cove Estates, Inc.*, 526 F.2d 1293, 1299, 8 ERC 1657, 1661 (5th Cir. 1976). Cf. *Dow Chemical Co. v. Dixie Carriers, Inc.*, 330 F. Supp. 1304, 1307 (S.D. Tex. 1971), *aff'd*, 463 F.2d 120 (5th Cir. 1972), *cert. denied*, 409 U.S. 1040 (1972).

85. 33 C.F.R. § 209.260(g)(1)(iii) (1976).

86. *Weiszmann v. District Engineer, U.S. Army Corps of Engineers*, 526 F.2d 1302, 1305, 8 ERC 1663, 1665 (5th Cir. 1976); *United States v. Sexton Cove Estates, Inc.*, 526 F.2d 1293, 1299, 8 ERC 1657, 1661 (5th Cir. 1976).

87. The distinction between defining a navigable water and establishing the geographic scope of regulatory authority over the water was underscored by the Fifth Circuit in *United States v. Joseph G. Moretti, Inc. (Moretti I)*, 478 F.2d 418, 428 (5th Cir. 1973):

Of course, as with most bodies of water, there comes a point where the depth of the water is minimal as the bottom slopes up to the bank. But one would hardly contend that the Mississippi is any less navigable simply because a pirogue would go aground at the water's edge.

1. *Nontidal Waters: Rivers, Streams, and Lakes*

The geographic limits of federal jurisdiction over rivers and streams have been established by the Supreme Court in a number of cases. The basic principle followed by the Court holds that federal regulatory authority extends laterally to the entire water surface and bed of a stream, which includes all the land and waters below the ordinary high-water mark.⁸⁸ Riparian owners often have argued that structures and activities located in shallow and non-navigable portions of a navigable water cannot be subject to federal regulatory authority. This argument consistently has fallen on deaf judicial ears:

When Congress acts, necessarily its power extends to the whole expanse of the stream, and is not dependent upon the depth or shallowness of the water. To recognize such distinction would be to limit the power when and where its exercise might be most needed.⁸⁹

The "ordinary high-water mark" of a nontidal waterway is determined by the ordinary flows of the water.⁹⁰ It does not extend to the peak flow nor flood stage, nor is it confined to the lowest stages of flow.⁹¹

2. *Tidal Waters: Bays and Estuaries*

In the case of tidal waters such as bays and estuaries, the same basic jurisdictional principle applies: regulatory authority extends laterally to the entire water surface and bed of all waters subject to tidal

88. *United States v. Rands*, 389 U.S. 121, 123 (1967); *United States v. Virginia Elec. & Power Co.*, 365 U.S. 624, 628 (1961); *United States v. Chicago, Milwaukee, St. Paul & Pacific R.R.*, 312 U.S. 592, 596-97 (1941). Corps of Engineers regulations adopt this rule. 33 C.F.R. § 209.260(j)(1) (1976).

89. *Greenleaf Johnson Lumber Co. v. Garrison*, 237 U.S. 251, 263 (1915). See also 27 OP. ATT'Y GEN. 120, 123 (1908), where the Attorney General ruled that a river can be a navigable water notwithstanding the fact that parts of it cannot be navigated.

90. 33 C.F.R. § 209.260(j)(1)(i) (1976). Corps regulations express a clear preference for determining the ordinary high-water mark by means other than physical markings on lands abutting the waterway:

Physical markings on the lands may be used in determining the mark only where, due to variations of flows, there is no absolute ascertainable level, and where more precise information is not available.

Id. The Corps' position in this regard conflicts with the view taken by some courts. For example, in *Borough of Ford City v. United States*, 345 F.2d 645, 648 (3d Cir. 1965), the court stated:

If there is a clear line, as shown by erosion, and other easily recognized characteristics such as shelving, change in the character of the soil, destruction of terrestrial vegetation, and litter, it determines the line of ordinary high water.

A similar statement was made in *United States v. Claridge*, 279 F. Supp. 87, 91 (D. Ariz. 1967), *aff'd*, 416 F.2d 933 (9th Cir. 1969), *cert. denied*, 397 U.S. 961 (1970):

The ordinary high water mark of a river is a natural physical characteristic placed upon the lands by the action of the river. It is placed there, as the name implies, from the ordinary flow of the river . . .

91. 33 C.F.R. § 209.260(j)(1)(i) (1976).

action.⁹² Years ago, even before environmentalists concerned themselves with the protection of wetland areas, the lower federal courts embraced this principle in upholding federal authority over shallow portions of tidal waters.⁹³ More recently, this rule has appeared in regulations promulgated by the Corps of Engineers.⁹⁴ With the rising tide of environmental concern over the protection of wetlands, a number of recent cases have upheld the exercise of federal jurisdiction over shallow tidal areas.⁹⁵

a. Determining the shoreward limit of jurisdiction

The key issue which has arisen in connection with tidal areas concerns the shoreward line—the “edge” of the water, so to speak—to which the Corps can assert regulatory authority. In rivers and streams, the ordinary high-water mark is relatively easy to pinpoint. In tidal waters, the task is more formidable. This is because the line demarcating the “edge” of the water constantly changes. Not only do water levels vary daily in accordance with tidal cycles, but tidal erosion can dynamically change the contours of a shoreline.

The majority of courts and the Corps of Engineers have resolved this issue by using a specific tidal datum plane⁹⁶ to measure the extent of federal jurisdiction.⁹⁷ Corps regulations express this as “the line on the

92. *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096, 1102 (N.D. Cal. 1976); *United States v. Lewis*, 355 F. Supp. 1132, 1136, 5 ERC 1198, 1200 (S.D. Ga. 1973); *United States v. Pot-Nets, Inc.*, 363 F. Supp. 812, 816 (D. Del. 1973); *United States v. Cannon*, 363 F. Supp. 1045, 1050, 5 ERC 1839, 1842 (D. Del. 1973); *United States v. Diamond*, 6 ERC 1968, 1971 (S.D. Ga. 1974), *aff'd*, 512 F.2d 157 (5th Cir. 1975), *cert. denied*, 423 U.S. 928 (1975).

93. *United States v. Turner*, 175 F.2d 644, 647 (5th Cir. 1949); *United States v. Banister Realty Co.*, 155 F. 583, 595 (E.D.N.Y. 1907).

94. 33 C.F.R. § 209.260(k)(2) (1976).

95. *E.g.*, *United States v. Stoeco Homes, Inc.*, 498 F.2d 597, 610, 6 ERC 1757, 1765 (3d Cir. 1974), *cert. denied*, 420 U.S. 927 (1975); *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096, 1102 (N.D. Cal. 1976); *United States v. Lewis*, 355 F. Supp. 1132, 1136, 1139-40, 5 ERC 1198, 1200, 1202-03 (S.D. Ga. 1973); *United States v. Cannon*, 363 F. Supp. 1045, 1049-50, 5 ERC 1839, 1841-42 (D. Del. 1973).

96. “A tidal datum plane is a plane of reference for elevations, determined from the rise and fall of the tides.” H. MARMER, *TIDAL DATUM PLANES 1* (U.S. Dep’t of Commerce, Coast and Geodetic Survey, Special Pub. No. 135, Revised (1951) Edition) [hereinafter cited as *MARMER*].

97. *United States v. Sexton Cove Estates, Inc.*, 526 F.2d 1293, 1296-99, 8 ERC 1657, 1659-61 (5th Cir. 1976); *Weizmann v. District Engineer, U.S. Army Corps of Engineers*, 526 F.2d 1302, 1304, 8 ERC 1663, 1664 (5th Cir. 1976); *United States v. Joseph G. Moretti, Inc. (Moretti I)*, 478 F.2d 418, 429-30 (5th Cir. 1973); *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096, 1102 (N.D. Cal. 1976); *United States v. Lewis*, 355 F. Supp. 1132, 1137, 1139-40, 5 ERC 1198, 1200, 1202-03 (S.D. Ga. 1973); *United States v. Cannon*, 363 F. Supp. 1045, 1050, 5 ERC 1839, 1842 (D. Del. 1973); *United States v. Diamond*, 6 ERC 1968, 1971 (S.D. Ga. 1974), *aff'd*, 512 F.2d 157 (5th Cir. 1975), *cert. denied*, 423 U.S. 928 (1975).

A minority of courts have simply relied on the broad principle that jurisdiction

shore reached by the plane of the mean (average) high water," or, on the Pacific Coast, "the line reached by the mean of the higher high waters."⁹⁸ These regulations were first adopted by the Corps in September of 1972. To understand their import, it is necessary to understand the types of tidal cycles which occur on the different coasts.

(1.) *Tidal cycles*

At most places, the alternate rising and falling of the tide occurs twice daily. This means that in each lunar day of 24.84 hours, there are two complete tidal cycles (each cycle including a high tide and a low tide), each cycle lasting a little over twelve hours.⁹⁹ The Atlantic Coast experiences what is known as a "semi-diurnal" type of tide, which means there is little difference between the height of the two daily tidal cycles. Consequently, the two high tides which occur each day closely resemble one another and the two low tides which occur each day closely resemble one another.¹⁰⁰

The Pacific Coast, on the other hand, experiences what is known as a "mixed" type of tide. A mixed tide similarly consists of two complete tidal cycles per lunar day, but it is distinguished from a semi-diurnal tide by the fact that one of the daily cycles is considerably larger, in oceanographic terms, than the other one. As a result, one high tide is significantly "higher" than the other high tide, and one low tide is significantly "lower" than the other low tide.¹⁰¹

under the Rivers and Harbors Act extends to all areas subject to the ebb and flow of the tide. *United States v. Stoeco Homes, Inc.*, 498 F.2d 597, 610, 6 ERC 1757, 1765 (3d Cir. 1974), *cert. denied*, 420 U.S. 927 (1975); *United States v. Baker*, 2 ERC 1849, 1850 (S.D.N.Y. 1971).

98. 33 C.F.R. § 209.260 (1976) defines "geographical and jurisdictional limits of oceanic and tidal waters" as follows:

(k)(1)(ii) *Shoreward limit of jurisdiction.* Regulatory jurisdiction in coastal areas extends to the line on the shore reached by the plane of the mean (average) high water. However, on the Pacific coasts, the line reached by the mean of the higher high waters is used.

...
(2) *Bays and estuaries.* Regulatory jurisdiction extends to the entire surface and bed of all water bodies subject to tidal action. Jurisdiction thus extends to the edge (as determined by paragraph (k)(1)(ii) of this section, "Shoreward Limit") of all such water bodies, even though portions of the water body may be extremely shallow, or obstructed by shoals, vegetation, or other barriers. Marshlands and similar areas are thus considered "navigable in law," but only so far as the area is subject to inundation by the mean high waters. The relevant test is therefore the presence of the mean high tidal waters, and not the general test described above, which generally applies to inland rivers and lakes.

99. *MARMER*, *supra* note 96, at 1, 9.

100. *Id.* at 9-12, 14-16.

101. *Id.* at 9-12, 17-22.

A third type of tide, known as diurnal, occurs on the Gulf Coast. This type of tide completes only one tidal cycle each day. Thus it includes only one high tide and one

Although the two daily high tides on the Atlantic Coast are not exactly identical, the variations between them, or "diurnal inequality," are considered to be "relatively small" and the two tides closely resemble each other on a given day.¹⁰² By contrast, the two daily Pacific Coast high tides exhibit marked differences from one another and their variations are considered to be "relatively large."¹⁰³ These differences can be precisely expressed by mathematical formulae.¹⁰⁴ The difference between the "relatively small" diurnal inequality found on the Atlantic Coast and the "relatively large" diurnal inequality found on the Pacific Coast supports a clear scientific distinction between the tides that occur on each coast.¹⁰⁵ It is this distinction that the Corps of Engineers recognizes in its regulations.

The terms mean high water (MHW) and mean higher high water (MHHW) derive from these tidal concepts. MHW is the average of all the daily high tides at a given location over an 18.6 year period, which constitutes a complete lunar cycle.¹⁰⁶ MHHW is the average of all of the higher of the two daily high tides at a given location over an 18.6 year period.¹⁰⁷ Because MHHW includes just the higher of the two daily high tides, it is at a higher elevation (*i.e.*, further shoreward) than MHW.

(2.) *Legal significance of the tidal datum*

Against this background, it is now necessary to focus on the legal significance of using either MHW or MHHW as the measure of geographic jurisdiction under sections 9 and 10. On the Atlantic Coast, use of MHW ensures federal jurisdiction over virtually all areas that are inundated by tidal waters at least once during an average day. The only area excluded is the "relatively small"¹⁰⁸ area between the midpoint of the two daily high tides and the higher of the two daily high tides. On the Pacific Coast, if MHW were used, as opposed to MHHW, a "considerable"¹⁰⁹ area (the difference between the midpoint of the two daily high tides and the higher of the two daily high tides) which is inundated by tidal waters at least once during an average day would escape

low tide per lunar day. *Id.* at 9-10, 16. For purposes of the Corps regulations being discussed here, the Gulf Coast is treated the same as the Atlantic Coast.

102. *Id.* at 9-11.

103. *Id.*

104. *Id.* at 21-22.

105. *Id.* at 9-11.

106. 33 C.F.R. § 209.260(k)(1)(ii) (1976); MARMER, *supra* note 96, at 123-24.

107. 33 C.F.R. § 209.260(k)(1)(ii) (1976); MARMER, *supra* note 96, at 124.

108. MARMER, *supra* note 96, at 11.

109. *Id.*

federal regulation.¹¹⁰ In San Francisco Bay, for example, approximately 125 square miles of shallow marshland and 63 square miles of enclosed salt ponds would be excluded from federal jurisdiction if MHHW were not the applicable jurisdictional line.¹¹¹ Exclusion of such a large wetland area from regulatory authority would compromise the established rule that federal jurisdiction extends laterally to the entire surface of a tidal water.

For this reason, the Corps of Engineers' adoption of MHHW as the shoreward limit of its jurisdiction on the Pacific Coast stands on a firm scientific and legal footing. It guarantees that the Rivers and Harbors Act is given an equal and uniform application on both coasts. Moreover, it maintains inviolate the developing principle that shallow water and marshland areas deserve the same protection under sections 9 and 10 as the deeper portions of navigable waters.

b. Judicial interpretation of Corps regulations

The Corps' regulations defining the shoreward limit of its jurisdiction over tidal waters have emerged unscathed from a number of legal bouts. Several decisions have endorsed MHW as the proper limit of shoreward jurisdiction on the Atlantic Coast.¹¹² Each of these Atlantic Coast decisions relies on the same general principle: jurisdiction extends over the entire surface and bed of a tidal water. Their reliance on this principle establishes a persuasive precedent for the Corps' exercise of jurisdiction on the Pacific Coast to the line of MHHW.

Until quite recently, there were no cases testing the validity of the MHHW jurisdictional line on the Pacific Coast.¹¹³ Since the beginning of 1975, however, two cases brought in the Northern District of California have specifically considered the tidal phenomenon on the Pacific Coast as it relates to regulation under the Rivers and Harbors Act. In

110. The practical effect of this is vividly illustrated in South San Francisco Bay, a flat estuarine area where the bed of the water has an almost imperceptible slope.

111. HOUSE COMM. ON GOV'T OPERATIONS, INCREASING PROTECTION FOR OUR WATERS, WETLANDS, AND SHORELINES: THE CORPS OF ENGINEERS, H.R. REP. NO. 92-1323, 92d Cong., 2d Sess. 29 (1972) [hereinafter cited as INCREASING PROTECTION FOR OUR WATERS, WETLANDS, AND SHORELINES].

112. *E.g.*, *United States v. Lewis*, 355 F. Supp. 1132, 1137, 1139-40, 5 ERC 1198, 1200, 1202-03 (S.D. Ga. 1973); *United States v. Cannon*, 363 F. Supp. 1045, 1050, 5 ERC 1839, 1842 (D. Del. 1973); *United States v. Diamond*, 6 ERC 1968, 1971 (S.D. Ga. 1974), *aff'd*, 512 F.2d 157 (5th Cir. 1975), *cert. denied*, 423 U.S. 928 (1975).

113. One district court case decided in 1973, *United States v. Sunset Cove, Inc.*, 5 ERC 1023 (D. Ore. 1973), *aff'd as modified*, 514 F.2d 1089 (9th Cir. 1975), involved a violation of the Rivers and Harbors Act, but did not consider whether the Corps could lawfully exercise jurisdiction to the line of mean higher high water. For an unknown reason, the parties agreed to mean high water as the limit of jurisdiction and the court accepted the agreement without comment.

United States v. Freethy,¹¹⁴ the United States brought an action to restrain the filling of lands below the line of MHHW. The court held, in unpublished findings, that "the authority of the United States over navigable waters extends to the mean higher high water (MHHW) mark on the Pacific coast," and "has always so extended since the enactment of the Rivers and Harbors Act of 1899."¹¹⁵

A more significant decision was handed down by the court in *Sierra Club v. Leslie Salt Co.*¹¹⁶ In that case, Leslie challenged the Corps' assertion of jurisdiction over environmentally valuable estuarine lands shoreward beyond the MHW line.¹¹⁷ Leslie placed heavy reliance on *Borax Consolidated, Ltd. v. Los Angeles*,¹¹⁸ a 1935 Supreme Court decision that used the MHW line to determine ownership of certain harbor properties. As the district court in *Leslie Salt* correctly noted, *Borax* had nothing to do with federal regulatory authority.¹¹⁹ The district court relied instead on an analysis of the Supreme Court's inland river decisions¹²⁰ and the Atlantic Coast cases recognizing Corps jurisdiction shoreward to the line of MHW. Recognizing the rationale underlying these cases, the court upheld the Corps' regulatory authority on the Pacific Coast to the line of MHHW:

If we were to adopt MHW in the pending cases, simply because that standard has long been used in the very different circumstances prevailing on the Atlantic Coast, we would be following the letter of the earlier cases but ignoring their underlying principle. The wiser

114. No. C-73-1470 SC (N.D. Cal., filed Feb. 25, 1975).

115. *Id.* at 8, 1.

116. 412 F. Supp. 1096 (N.D. Cal. 1976).

117. Leslie challenged the validity of two public notices issued by the Corps of Engineers' San Francisco District in 1971 and 1972. On June 11, 1971, in Public Notice No. 71-22, the San Francisco District officially took the position for the first time that its jurisdiction within the district extends to the line of mean higher high water.

This Public Notice is issued to inform all interested parties of the definition of navigable waters of the United States subject to tides in which the permit procedures established by the River & Harbor Act of 1899 are applicable. Henceforth limits of jurisdiction over such waters shall extend to the line on shore reached by the plane of the mean of the higher high water. . . .

On January 18, 1972, Public Notice No. 71-22(a) clarified the San Francisco District's jurisdictional position:

This is in elaboration of our previous Public Notice No. 71-22, dated 11 June 1971, announcing that the Corps of Engineers is now exercising its regulatory authorities within the area bound by the plane of the mean of the higher high water. Permits are required for all new work in unfilled portions of the interior of diked areas below former mean higher high water.

118. 296 U.S. 10 (1935).

119. As the Sierra Club successfully argued, the location of title has no relation to the exercise of federal authority under the Rivers and Harbors Act, and the exercise of such authority is not affected or limited by the fact that affected lands are privately owned.

120. *The Daniel Ball*, 77 U.S. (10 Wall.) 557 (1870); *Greenleaf Johnson Lumber Co. v. Garrison*, 237 U.S. 251 (1915); *United States v. Rands*, 389 U.S. 121 (1967).

course is to recognize the Corps' jurisdiction, as nearly as practicable, so as to encompass the whole expanse of the body of water, just as has been done for inland rivers and along the Atlantic Coast.¹²¹

The logic of the court's opinion is convincing. Not only did the court's opinion appreciate the scientific justification for applying different jurisdictional standards on the Atlantic and Pacific Coasts, but it demonstrated a sensitive understanding of the basic principles governing federal regulation of navigable waters. In light of these factors, it is unlikely that the Ninth Circuit will take a different view in deciding the case on appeal.¹²²

C. Section 10 and "Obstructions to Navigable Capacity"

We have seen that the Corps of Engineers' regulatory authority extends to the entire water surface and bed of any waterway that meets the past, present, or future use test of navigability. The next question is what kinds of activities within the jurisdictional area are subject to Corps approval. Section 9 specifies that authorization is required for the construction of any bridge, dam, dike, or causeway.¹²³ Section 10, in addition to requiring authorization for the construction of any wharf, pier, breakwater, jetty, or other structure, speaks in terms of *effect*, and requires authorization for any "obstruction to navigable capacity" or for any activity that may "alter or modify the course, location, condition, or capacity" of any navigable water.¹²⁴ Since the statutory test is effect on a waterway's capacity to support navigation, many environmentally harmful activities which also diminish navigable capacity may be regulated under the authority of section 10.

1. Judicial Development of the Obstruction Concept

In 1890 Congress, using language similar to that later employed in section 10 of the Rivers and Harbors Act of 1899, prohibited "the creation of any obstruction, not affirmatively authorized by law, to the navigable capacity of any waters [of] . . . the United States."¹²⁵ *United States v. Rio Grande Dam & Irrigation Co.*¹²⁶ was the first major case to define "obstruction" in this statutory context. In *Rio Grande* the United States sought to enjoin the defendant from constructing a dam across a non-navigable portion of the Rio Grande River. The Supreme

121. *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096, 1102 (N.D. Cal. 1976).

122. The district court's decision has been appealed to the Court of Appeals for the Ninth Circuit. *Appeal docketed*, No. 76-2414, 9th Cir., June 30, 1976; No. 76-2696, 9th Cir., June 30, 1976.

123. 33 U.S.C. § 401 (1970).

124. *Id.* § 403.

125. Act of Sept. 19, 1890, ch. 907, § 10, 26 Stat. 454.

126. 174 U.S. 690 (1899).

Court held that the statute was applicable to the proposed dam and construed the language in section 10 to prohibit

anything, wherever done or however done . . . which tends to destroy the navigable capacity of one of the navigable waters of the United States [I]t would be to improperly ignore the scope of this language to limit it to the acts done within the very limits of navigation of a navigable stream.¹²⁷

In broadly interpreting the phrase "obstruction to navigable capacity" to include a structure not itself located in navigable waters, the Court stressed that the criterion for determining whether the statute had been violated was effect on navigability.

This broad reading was carried over to section 10 of the 1899 Act in *Sanitary District of Chicago v. United States*.¹²⁸ There, the Supreme Court held that a diversion of water from Lake Michigan, by lowering the level of the lake, constituted a change in condition and an obstruction in violation of section 10.¹²⁹ The Court cited *Rio Grande* with approval and characterized section 10 of the 1899 Act as a "broad expression of policy in unmistakable terms."¹³⁰ The Court a few years later reaffirmed *Sanitary District's* broad construction of section 10.¹³¹

In 1960, in the case of *United States v. Republic Steel Corp.*,¹³² the "obstruction" language was applied for the first time to an environmental hazard. In that case the defendant corporations, producers of iron and related products, pumped water from the Calumet River for industrial use and returned it to the channel through sewers. Their mills did not remove all the solids from the sewage. Many particles, in suspension in the waste water, flocculated into larger units in the river, sank to the bottom, and in time reduced the depth of the channel by several feet.¹³³ The United States charged that defendants' discharges constituted obstructions in violation of section 10 and sought an injunction prohibiting further deposit of waste solids and requiring the defendants to dredge the river to its former depth. The companies claimed that the phrase "obstructions to navigable capacity" refers only to the types of projects listed in the second and third clauses of section 10 (wharves, piers, fills, etc.) and was never intended to apply to sewer discharges.

127. *Id.* at 708.

128. 266 U.S. 405 (1925).

129. *Id.* at 426.

130. *Id.* at 429.

131. *Wisconsin v. Illinois*, 278 U.S. 367, 414 (1929).

132. 362 U.S. 482, 1 ERC 1022 (1960).

133. The original channel depth of 21 feet in 1951 had been reduced in some places to 17 feet and along the sides of the channel to 12 feet. *United States v. Republic Steel Corp.*, 155 F. Supp. 442, 451 (N.D. Ill. 1957).

The Supreme Court held that the deposit of industrial solids in the river created an obstruction in violation of section 10.¹³⁴ Recognizing that navigable capacity can be diminished by many different means, Mr. Justice Douglas accepted the government's contention that the word "obstruction" merits a broad, inclusive construction. He reasoned that the ban against any obstruction in the first clause of section 10 "is broad enough to include diminution of the navigable capacity of a waterway by means not included in the second or third clauses."¹³⁵ The Court's sweeping definition of "obstruction" was well founded in view of the broad construction accorded the term in the *Rio Grande* and *Sanitary District* cases.

The practical significance of *Republic Steel* was to show that section 10 can be used to challenge activities with environmentally harmful effects. The discharge of solid waste particulates by a factory is but one example of an activity which causes adverse environmental impacts in waterways and also diminishes navigable capacity. The *Republic Steel* decision rendered such activities subject to attack as unlawful obstructions to navigable capacity in violation of the Rivers and Harbors Act.

2. Recent Applications of the Obstruction Concept

Recent cases have confirmed that a project need not be located "in" a navigable waterway to create an unlawful obstruction. The Second Circuit's decision in *United States v. Perma Paving Co.*¹³⁶ illustrates this rule. There, the defendant's overloading of riparian land with bricks, granite, and fill was alleged to have caused shoaling in an adjacent channel in violation of section 10. In the court's view, the federal government unquestionably had jurisdiction over the activity:

[P]lainly there is not one rule when a riparian owner discharges solids from his property into the stream and a different one when he places such excessive weight on the property as to cause the soil itself to move into the bed of the stream.¹³⁷

The Fifth Circuit recently took a similar position in three related cases,¹³⁸ relying on the third clause of section 10 which requires Corps authorization for any excavation or filling which will "alter or modify

134. 362 U.S. at 485, 1 ERC at 1023.

135. *Id.* at 489, 1 ERC at 1024. See note 6 *supra* for the full text of section 10.

136. 332 F.2d 754 (2d Cir. 1964).

137. *Id.* at 757.

138. *United States v. Sexton Cove Estates, Inc.*, 526 F.2d 1293, 8 ERC 1657 (5th Cir. 1976); *Weizmann v. District Engineer, U.S. Army Corps of Engineers*, 526 F.2d 1302, 8 ERC 1663 (5th Cir. 1976); *United States v. Joseph G. Moretti, Inc. (Moretti II)*, 526 F.2d 1306, 8 ERC 1666 (5th Cir. 1976). These cases were decided by the same panel of judges on the same day.

the course, location, condition, or capacity of" any navigable water.¹³⁹ Each case involved the dredging of canals on land shoreward of the mean high tide line (MHTL).¹⁴⁰ The Corps claimed that the dredging required a section 10 permit. The principal argument advanced by the defendants was that the Corps lacks jurisdiction over areas not located within navigable waters. The court held, however, that section 10 creates no such jurisdictional barrier.¹⁴¹

[T]he Corps may under certain circumstances exercise jurisdiction over dredging and filling operations above MHTL under [section 10] of the Rivers and Harbors Act. Prerequisite for such jurisdiction are factual circumstances showing some effect upon navigable waters, some alteration or modification of either course, location, condition or capacity of those waters. These statutory terms are broad and undefined. So long as activities fall within this generous scope, those activities are subject to the jurisdiction of the Corps.¹⁴²

The Fifth Circuit decisions underscore an important new use of section 10: the regulation of waterfront and coastal development. A waterfront development which alters or modifies the shoreline of a navigable water requires prior approval by the Corps of Engineers. If the developer fails to obtain the necessary authorization, the legality of the project can be challenged on section 10 grounds.

One of the most interesting recent applications of the obstruction concept in environmental litigation occurred in *Sierra Club v. Morton (Peripheral Canal)*.¹⁴³ In that case a federal district court held that the Corps of Engineers' authority over obstructions applies to three major facilities of the California Water Project. The case is significant for two reasons. First, the facilities involved in the litigation are part of a massive public works project which has been highly controversial since its inception. Second, the decision confirmed that activities located at a considerable distance from navigable waters may have a substantial effect on navigable capacity, and, if so, are within the regulatory jurisdiction of the Corps under section 10.

Some factual explanation is necessary to understand the *Peripheral Canal* case. The California Water Project is a massive system of dams, canals, pumping plants, and other facilities designed to transfer water across the Sacramento-San Joaquin Delta to various points in the Cen-

139. 33 U.S.C. § 403 (1970).

140. The mean high tide line is synonymous with the line of mean high water. See text accompanying note 106 *supra*.

141. 526 F.2d at 1299, 8 ERC at 1661; 526 F.2d at 1304, 8 ERC at 1664; 526 F.2d at 1309, 8 ERC at 1668.

142. *United States v. Joseph G. Moretti, Inc. (Moretti II)*, 526 F.2d 1306, 1309, 8 ERC 1666, 1668 (5th Cir. 1976).

143. 400 F. Supp. 610, 7 ERC 2153 (N.D. Cal. 1975).

tral Valley and Southern California.¹⁴⁴ The Delta consists of many hundreds of miles of meandering waterways and adjoining marshlands which support commercial shipping and fishing, recreational activities, and abundant wildlife. The unique character of the Delta's geography and ecology is highlighted in the following passage:

Contained within the Delta is a natural inland complex of sloughs; more than 60 leveed islands, most of them below sea level; and marshlands with 50,000 surface acres of water and more than 1000 miles of shoreline. Trees and vegetation provide food and cover for about 200 species of nongame birds, 39 species of mammals, 19 species of reptiles, and seven species of amphibians. The waters contain an abundance of fish and other aquatic life. Hundreds of thousands of hunters, fishermen, boaters, nature lovers, and tourists explore its interior every year. The 700 miles of waterways make up one of the largest bodies of protected cruising waters in the United States.¹⁴⁵

Concern that the California Water Project would destroy the unique character of the Delta spawned the *Peripheral Canal* litigation. The Sierra Club challenged the legality of the construction and operation of three principal facilities of the Project. Two of these were existing pumping plants,¹⁴⁶ both located at least two miles distant from any navigable waters and connected thereto by man-made inlet channels. The third of these was the proposed Peripheral Canal, a 42-mile artificial channel designed to divert fresh water from the Sacramento River to the two pumping plants. Plaintiffs contended, *inter alia*, that

144. The California Water Project includes both state and federal facilities. The federal component, designated as the Central Valley Project, is designed to control the flow of water in the Sacramento and San Joaquin Rivers. It generates hydroelectric power, provides flood control, and supplies water for irrigation and other uses in the Central Valley. The state component, known as the State Water Project, consists of facilities which transfer water from the Delta to the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California. 400 F. Supp. at 618, 7 ERC at 2153-54. See also Gleason, *Water Projects Go Underground*, 5 ECOLOGY L.Q. 625, 629 (1976). For an interesting account of the history and development of the California Water Project, see Taylor, *California Water Project: Law and Politics*, 5 ECOLOGY L.Q. 1 (1975).

145. Rubin, *Dilemma in the Delta—Balancing Competing Interests*, CAL. J. 277-78 (Aug. 1976).

146. One of the plants in controversy was the Tracy Pumping Plant, built by the Bureau of Reclamation. The Tracy Plant consists of six pumps with a maximum pumping capacity of 4602 cubic feet per second, which divert water from the Delta by means of an artificial intake channel and lift it into the Delta-Mendota Canal. The Delta-Mendota Canal serves as the conduit through which federal water is transported to the Central Valley. 400 F. Supp. at 620, 7 ERC at 2155.

The other plant in controversy was the Delta Pumping Plant, constructed by the State of California. The Delta Plant has seven pumping units with a combined capacity of 6300 cubic feet per second. Water is diverted from the Delta through an intake canal and lifted by the Delta Plant into the California Aqueduct. *Id.* at 621, 7 ERC at 2155.

the construction and operation of the pumping plants and the proposed construction of the Peripheral Canal, in the absence of prior authorization by the Corps of Engineers, constituted violations of section 10 of the Rivers and Harbors Act.

The court confronted two threshold questions concerning the coverage of section 10. First, the court rejected the argument that section 10 applies only to structures located over or in a navigable water. Its opinion stressed operational effect, rather than location, as the key determinant. If the functional effect of the structures obstructed navigable capacity in the Delta, section 10 approval would be necessary.¹⁴⁷ Second, the court repudiated the notion that an action must actually affect navigation to violate section 10: "all that is required is proof of the condition which creates the obstruction which has a substantial effect on navigable capacity."¹⁴⁸

Having disposed of the threshold issues, the court then determined that these three facilities had a substantial effect on navigable capacity and therefore required authorization by the Corps of Engineers. Carefully scrutinizing the evidentiary record developed during the trial, the court analyzed the actual and potential effects of each facility on navigable capacity in the Delta. The court concluded from the evidence that the pumping plants altered water levels and caused net flow reversals throughout the region, and that the Peripheral Canal would have a similar impact once operational.¹⁴⁹

Clearly, the courts have not confined themselves to a restricted and narrow reading of section 10. They have been willing to apply section 10's provisions to an impressively broad range of activities. The question we now must consider is whether the Corps of Engineers can regulate this range of activities in a way which proves beneficial to the environment.

D. Regulatory Authority: More Than Just Navigation

The practical significance of sections 9 and 10 lies in the Corps of Engineers' authority to grant, deny, or condition permits for projects within the scope of the two sections.¹⁵⁰ The manner in which the Corps

147. *Id.* at 628-29, 7 ERC at 2161.

148. *Id.* at 630, 7 ERC at 2162.

149. *Id.* at 630-32, 7 ERC at 2162-64.

150. In 1971, the Secretary of the Army delegated his authority to grant or deny permits under the Rivers and Harbors Act to the Chief of the Corps of Engineers. 33 C.F.R. § 209.120 App. D (1976). This delegation of authority was challenged and upheld in *Joseph G. Moretti, Inc. v. Hoffman*, 526 F.2d 1311, 1312, 8 ERC 1669, 1670 (5th Cir. 1976).

The activities we are most concerned about in this section on regulatory authority are dredge and fill projects. Most projects in or adjacent to navigable waters require at least some amount of dredging and filling.

exercises its regulatory and permit authority is crucial if the Rivers and Harbors Act is to be an effective instrument of environmental protection. By taking environmental factors into account when it reviews permit applications the Corps can effectively mitigate environmental harm to the nation's water resources. The critical question is what criteria the Corps may employ in determining whether to issue a permit. Neither the statute nor its legislative history satisfactorily resolve the issue. On the one hand, we already have seen that the drafters of sections 9 and 10 were predominantly concerned with the protection and enhancement of navigation.¹⁵¹ On the other hand, neither section is restricted by its specific terms to activities which actually affect navigation.

1. Early Interpretations of Regulatory Authority

For many years after Congress enacted the Rivers and Harbors Act, it was believed that sections 9 and 10 empowered the Secretary of War to grant or deny permits only for navigational reasons.¹⁵² This belief derived from the early view that the regulatory authority of the United States in navigable waters was "limited to the control thereof for purposes of navigation."¹⁵³ The Corps of Engineers adhered to this view, administering the Act with primary or exclusive emphasis on how a proposed structure would affect navigation.¹⁵⁴ Until the mid-1960's, public notices announcing the filing of applications for section 9 and 10 permits "defined the Corps' interest as being confined to issues of navigation, and requested comments from the public only on such issues."¹⁵⁵

Erosion of the view that the Corps could only consider navigational factors began in 1933 when the Supreme Court decided *United States ex rel. Greathouse v. Dern*.¹⁵⁶ In that case, the Chief of Engineers had denied a permit for construction of a wharf which, although not a hazard to navigation, would increase the value of nearby land which the government intended to condemn for a parkway. In refusing to order that a permit be granted the Court tacitly recognized that the Corps may

151. See text accompanying notes 10-33 *supra*.

152. *Miami Beach Jockey Club, Inc. v. Dern*, 86 F.2d 135, 136 (D.C. Cir. 1936). See also 34 OP. ATT'Y GEN. 410, 412, 415-16 (1925).

153. *Port of Seattle v. Oregon & Washington R.R.*, 255 U.S. 56, 63 (1921). See also *United States v. River Rouge Improvement Co.*, 269 U.S. 411, 419 (1926).

154. COMM. ON GOV'T OPERATIONS, OUR WATERS AND WETLANDS: HOW THE CORPS OF ENGINEERS CAN HELP PREVENT THEIR DESTRUCTION AND POLLUTION, H.R. REP. NO. 91-917, 91st Cong., 2d Sess. 2 (1970) [hereinafter cited as OUR WATERS AND WETLANDS].

155. *Id.*

156. 289 U.S. 352 (1933).

consider non-navigational factors in evaluating a permit application.¹⁵⁷

Seven years later, the Supreme Court explicitly rejected the view that Congress may regulate navigable waters only for purposes of navigation. In its landmark opinion, *United States v. Appalachian Electric Power Co.*,¹⁵⁸ the Court left no doubt that the regulatory authority of the United States over navigable waters extends beyond simply protection of navigation.

In our view, it cannot properly be said that the constitutional power of the United States over its waters is limited to control for navigation. . . . In truth the authority of the United States is the regulation of commerce on its waters. Navigability, in the sense just stated, is but a part of this whole. . . . The point is that navigable waters are subject to national planning and control in the broad regulation of commerce granted the Federal Government. The license conditions to which objection is made have an obvious relationship to the exercise of the commerce power. Even if there were no such relationship the plenary power of Congress over navigable waters would empower it to deny the privilege of constructing an obstruction in those waters. It may likewise grant the privilege on terms.¹⁵⁹

Appalachian involved the Federal Power Commission's authority to license the construction of dams, and did not squarely decide whether the Corps of Engineers has the authority to deny a Rivers and Harbors Act permit on the basis of non-navigational factors. Nevertheless, the importance of this decision to the Corps' regulatory authority under sections 9 and 10 can hardly be overemphasized. By according the federal regulatory power over navigable waters an expansive reading, the *Appalachian* Court opened the door for the Corps to use its authority under sections 9 and 10 for purposes other than the protection of navigation.

2. *New Environmental Concerns*

Use of sections 9 and 10 to protect environmental values germinated in 1958 when Congress enacted the Fish and Wildlife Coordination Act.¹⁶⁰ This statute generally provides that "wildlife conservation shall receive equal consideration"¹⁶¹ in federal decision making. The law specifically directs each federal agency such as the Corps of Engineers to consult with the Fish and Wildlife Service before it grants a permit for the modification of any water body.¹⁶² Thus, before the Corps can grant a permit for a dredge and fill operation, it must consult with the

157. G. Power, *The Federal Role in Coastal Development*, in *FEDERAL ENVIRONMENTAL LAW* 792, 816 (E. Dolgin & T. Guilbert eds. 1974) [hereinafter cited as Power].

158. 311 U.S. 377 (1940).

159. *Id.* at 426-27.

160. 16 U.S.C. §§ 661-64 (1970).

161. *Id.* § 661.

162. *Id.* § 662(a).

Fish and Wildlife Service with a view toward the conservation of wildlife resources.¹⁶³ After the passage of this legislation, the Secretary of the Army and the Secretary of the Interior entered into a Memorandum of Understanding in which they outlined cooperative procedures for the evaluation of dredge and fill permit applications.¹⁶⁴ For the first time since its inception, the Corps executed a formal commitment to consider environmental factors in evaluating permit applications.

After this initial step, the Corps demonstrated an increasing willingness to consider environmental values when issuing permits. New Corps regulations published on December 18, 1968 called for an evaluation of the "public interest" and "all relevant factors" in the project assessment process.¹⁶⁵ The regulations specifically recognized "the effect of the proposed work on navigation, fish and wildlife, conservation, pollution, aesthetics, ecology, and the general public interest" as factors relevant to the evaluation of a permit application.¹⁶⁶ Following the Corps' promulgation of these regulations, Congress enacted the National Environmental Policy Act of 1969 (NEPA).¹⁶⁷ NEPA mandates that every federal agency shall consider ecological factors when dealing with activities which may have an impact on the human environment.¹⁶⁸ As a federal agency, the Corps had no choice once NEPA became law but to take environmental factors into account when reviewing permit applications.

3. *Zabel v. Tabb and Its Aftermath*

The Corps of Engineers' authority to deny a permit application solely on the basis of ecological factors was severely challenged in the landmark case of *Zabel v. Tabb*.¹⁶⁹ In a key legal victory for the environmental movement, the Court of Appeals for the Fifth Circuit upheld the application of the Rivers and Harbors Act to activities which adversely affect the marine environment without harming navigation.¹⁷⁰ In *Zabel*, two landowners wished to fill eleven acres of tidelands in Boca Ciega Bay in Florida for use as a mobile trailer park. At a public hearing on the dredge and fill application, governmental agencies and local citizens were virtually unanimous in their opposition to the pro-

163. *Zabel v. Tabb*, 430 F.2d 199, 209, 1 ERC 1449, 1455-56 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).

164. The Memorandum of Understanding is reprinted in Appendix B to 33 C.F.R. § 209.120 (1976).

165. 33 C.F.R. § 209.120(d)(1) (1973).

166. *Id.*

167. 42 U.S.C. § 4321 *et seq.* (1970).

168. *Zabel v. Tabb*, 430 F.2d 199, 211, 1 ERC 1449, 1457 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).

169. 430 F.2d 199, 1 ERC 1449 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).

170. *Id.* at 214, 1 ERC at 1460.

posed work. In light of this opposition, and because the project "[w]ould result in a distinctly harmful effect on the fish and wildlife resources in Boca Ciega Bay,"¹⁷¹ the Secretary of the Army concluded that issuance of the permit would be contrary to the public interest. The landholders then instituted an action to review the Secretary's determination and for an order compelling him to issue a permit. They contended that the proposed work would not hinder navigation and that the Secretary had no authority to refuse the permit on other grounds.

In rejecting the landholders' contentions, the Fifth Circuit made three significant and wide-ranging points. First, the court held that the commerce power unquestionably can be employed to protect the marine environment:

. . . the destruction of fish and wildlife in our estuarine waters does have a substantial, and in some areas a devastating, effect on interstate commerce. . . . dredge and fill projects are activities which may tend to destroy the ecological balance and thereby affect commerce substantially. Because of these potential effects Congress has the power to regulate such projects.¹⁷²

The court then held that the Rivers and Harbors Act does not restrict the bases for refusal of a permit.¹⁷³ The Secretary of the Army may deny a permit on non-navigational grounds provided he acts within the rule of reason against arbitrary action.¹⁷⁴ Finally, the court concluded that, because of the congressional mandate in the Fish and Wildlife Coordination Act and NEPA, the Secretary not only *may* reject a permit on ecological grounds, but he *must* weigh the effect a project will have on conservation before he issues a permit.¹⁷⁵ Judge Brown summed up the court's holding with the following passage:

. . . nothing in the statutory structure compels the Secretary to close his eyes to all that others see or think they see. The establishment was entitled, if not required, to consider ecological factors and, being persuaded by them, to deny that which might have been granted routinely five, ten, or fifteen years ago before man's explosive increase made all, including Congress, aware of civilization's potential destruction from breathing its own polluted air and drinking its own infected water and the immeasurable loss from a silent-spring-like disturbance of nature's economy.¹⁷⁶

171. *Id.* at 202, 1 ERC at 1450.

172. *Id.* at 204, 1 ERC at 1451-52. Unfortunately, the court did not discuss in what specific ways the destruction of fish and wildlife has a substantial effect on interstate commerce. The opinion would have been much stronger had the court provided some reasoning for its conclusion.

173. *Id.* at 207, 1 ERC at 1454.

174. *Id.*

175. *Id.* at 209-14, 1 ERC at 1455-60.

176. *Id.* at 201, 1 ERC at 1449.

One other case, decided shortly before *Zabel v. Tabb*, has held that the Corps of

Since *Zabel*, several cases have applied the provisions of the Rivers and Harbors Act to marshlands and other areas which clearly are not suitable for navigation.¹⁷⁷ Moreover, post-*Zabel* decisions interpreting sections 9 and 10 have exhibited a heightened sensitivity to the environmental impacts of proposed projects.¹⁷⁸ These decisions leave no doubt that the substantive scope of sections 9 and 10 includes environmental and other factors not directly related to navigation. These decisions also signify a judicial trend to closely scrutinize the environmental impacts of proposed projects and to uphold permit denials in cases which pose adverse environmental consequences.¹⁷⁹

4. *The New Corps Regulations*

Buttressed by its victory in *Zabel v. Tabb* and its statutory responsibility under NEPA, the Corps of Engineers in 1974 published new regulations detailing its policies for evaluating permit applications.¹⁸⁰ Compared to the earlier regulations, the new guidelines reflect a more aggressive commitment to use the Rivers and Harbors Act as a means of serving ecological values. In theory, the effect of these regulations should be to make it very difficult for an environmentally-destructive project to receive Corps approval.

The project assessment process under these regulations culminates in an evaluation of the probable impact of a proposed project on the

Engineers has a duty under the Rivers and Harbors Act to consider non-navigational factors in the permit process. In *Citizens Committee for the Hudson Valley v. Volpe*, 302 F. Supp. 1083, 1 ERC 1096 (S.D.N.Y. 1969), *aff'd*, 425 F.2d 97, 1 ERC 1237 (2d Cir. 1970), a federal district court held that the Corps of Engineers exceeded its statutory authority by recommending approval of a dredge and fill permit after considering only navigational factors. The State of New York proposed to build an expressway along the Hudson River, a project which contemplated an extensive dredge and fill operation. In addition to the dredge and fill permit, the approval of the Secretary of Transportation was required before an adjacent causeway could be constructed. If the Corps and the Secretary of the Army approved the fill and the State completed it, the Secretary of Transportation would have no practical alternative, in light of the resources already committed to the project, other than to approve the causeway. Thus, the court held that the Corps should have considered the proposed fill in the context of the entire expressway project rather than evaluating only its effect on navigation. *Id.* at 1089-90, 1 ERC at 1099-1100.

177. *United States v. Stoeco Homes, Inc.*, 498 F.2d 597, 610, 6 ERC 1757, 1765 (3d Cir. 1974), *cert. denied*, 420 U.S. 927 (1975); *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096, 1102 (N.D. Cal. 1976); *United States v. Lewis*, 355 F. Supp. 1132, 1136, 1139-40, 5 ERC 1198, 1200, 1202-03 (S.D. Ga. 1973); *United States v. Cannon*, 363 F. Supp. 1045, 1049-50, 5 ERC 1839, 1841-42 (D. Del. 1973). *But cf. Petterson v. Resor*, 331 F. Supp. 1302, 3 ERC 1170 (D. Ore. 1971).

178. *E.g.*, *United States v. Lewis*, 355 F. Supp. 1132, 1140, 5 ERC 1198, 1203 (S.D. Ga. 1973); *United States v. Baker*, 2 ERC 1849, 1850 (S.D.N.Y. 1971).

179. See Kramon, *Section 10 of the Rivers and Harbors Act: The Emergence of a New Protection for Tidal Marshes*, 33 MD. L. REV. 229, 255-56 (1973).

180. 33 C.F.R. § 209.120(f) (1976).

public interest.¹⁸¹ This evaluation includes a balancing of anticipated benefits and reasonably foreseeable detriments.¹⁸² Environmental factors play a prominent role in the balancing process. Among the factors the Corps considers relevant to each proposal are conservation, economics, aesthetics, historic values, fish and wildlife values, land use classifications, recreation, water supply, water quality, and, "in general, the needs and welfare of the people."¹⁸³ The regulations evidence particular concern toward the preservation of wetlands—inland and coastal shallows, marshes, mudflats, estuaries, swamps, and similar areas.¹⁸⁴ They create a presumption that a proposal which involves any damage to a wetlands resource is not in the public interest.¹⁸⁵

Many such areas serve important purposes relating to fish and wildlife, recreation, and other elements of the general public interest. As environmentally vital areas, they constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest.¹⁸⁶

To overcome this presumption, the applicant must not only prove that the project's benefits outweigh the damage to the wetlands resource, but must also show the lack of feasible alternative sites.¹⁸⁷ These requirements are consistent with the more general principle, implicit in the regulations, that the burden of demonstrating the absence of potential environmental harm rests upon the permit applicant. Allocation of the burden in this manner ensures that a project will not go forward until its potential harm to the environment is appraised.¹⁸⁸

5. *Assessing the Corps' Performance*

On paper, the Corps' regulations give the impression that the agency is in fact acting aggressively to protect the environment. The Corps is not renowned for its environmental sensitivity, however, and there is some question whether, in practice, Corps district offices are

181. *Id.* § 209.120(f)(1).

182. *Id.*

183. *Id.*

184. *Id.* § 209.120(g)(3).

185. Power, *supra* note 157, at 818.

186. 33 C.F.R. § 209.120(g)(3)(i) (1976).

187. *Id.* § 209.120(g)(3)(iv); Power, *supra* note 157, at 818.

188. This is consistent with a 1970 recommendation by the House Committee on Government Operations:

The committee believes that the Corps should place on the *applicant* the burden of proving that the filling, dredging, or other work is indisputably in accord with the public interest. The Corps should be sure that the environment will not be substantially harmed; or that there is no feasible and prudent alternative to such work and that all possible measures will be taken to minimize the resulting harm.

OUR WATERS AND WETLANDS, *supra* note 154, at 6 (emphasis in original).

applying the standards and criteria set forth by the regulations in reviewing permit applications. This discussion considers the extent to which the Corps actually is using its permit authority under sections 9 and 10 to protect ecological resources in navigable waters.

a. A model for environmental decision making: Marco Island

On occasion, the Corps has actively used its permit authority under sections 9 and 10 to prevent the loss of wetland resources. The best example is the agency's recent denial of dredge and fill permits for a controversial real estate development project that would have destroyed more than 2,000 acres of valuable mangrove wetlands on Florida's Marco Island.¹⁸⁹ Based on a complete administrative record in which it balanced all of the factors identified in its regulations, the Corps concluded that the project would not be in the public interest. The Marco Island case should be regarded as a model for future environmental decision making by the Corps.

Marco Island, located on Florida's west coast, consists of a number of islands of various sizes "containing a developed, partially developed, and underdeveloped mixture of low-lying upland and wetlands characterized by mangrove, swamp, and open lagoons."¹⁹⁰ A master plan to build a community for 35,000 people on Marco Island originally was conceived by the Deltona Corporation in 1964. The plan envisioned development over a period of years and procurement of permits at appropriate times for the construction of individual segments. In 1964, the Corps routinely granted Deltona a permit for the first segment of the project.¹⁹¹ An application for the next segment of the project, Roberts Bay, was filed in 1967. After considering objections raised by the U.S. Fish and Wildlife Service, the Corps in 1968 granted the Roberts Bay permit. Deltona was cautioned at that time that it should not assume future applications for Marco Island permits would be approved.¹⁹²

189. 6 ENV. RPTR.—CURR. DEV. 2141 (1976). A good journalistic account of the Corps' action and the magnitude of the Marco Island project can be found in Reed, *Engineers' Ban on Dredging Splits Floridians*, N.Y. Times, May 9, 1976, § 1, at 26, col. 3.

190. 6 ENV. RPTR.—CURR. DEV. 2141 (1976).

191. Report of the District Engineer on Application for Dep't of the Army Permits to Dredge and Fill at Marco Island, Collier County, Florida, Jacksonville District, Corps of Engineers, SAJOD-R, Permits 73G-0496, 0497, 0498, Oct. 16, 1975, at 1 [hereinafter cited as District Engineer's Report].

192. The Roberts Bay permit contained the following language with regard to the independence of each Marco Island permit application:

Permittee understands that all permit applications are independent of each other and that the granting of this permit does not necessarily mean that future applications for a permit or permits in the general area of the proposed work by Marco Island Development Corporation [a Deltona subsidiary] or others will be similarly granted.

Id. at 11.

Shortly thereafter, Deltona negotiated with the State of Florida for state permits to complete development of Marco Island. Deltona and the State entered into an agreement whereby the developer agreed to give Florida more than 4,000 acres of mangrove wetlands in exchange for the issuance of the necessary state and federal permits.¹⁹³ Florida Governor Askew characterized the agreement as "a sincere attempt to balance the environmental, economic, legal, private and public equities involved."¹⁹⁴ Deltona then submitted applications to the Corps of Engineers for section 10 permits to develop three major segments of the Marco Island project—Big Key, Barfield Bay, and Collier Bay. The applications proposed filling 1,096 acres at Big Key, 943 acres at Barfield Bay, and 113 acres at Collier Bay,¹⁹⁵ the overall result of which would be the destruction of 2,152 acres of productive mangrove wetlands.¹⁹⁶ The Jacksonville District, which processed the applications, prepared an environmental impact statement,¹⁹⁷ held public hearings,¹⁹⁸ and received more than 4,000 letters from interested local, state, and federal agencies, private individuals, and groups.¹⁹⁹ By the time the district engineer of the Jacksonville District prepared his recommendation on the three applications for the Chief of Engineers, 90 percent of the lots in the three permit areas under consideration had been sold.²⁰⁰

The district engineer recommended that the Big Key and Barfield Bay permits be denied and the Collier Bay permit be granted. In arriving at this recommendation he took into account both the beneficial and the detrimental effects of the proposed work. The beneficial effects identified by the district engineer included: (1) the approximately 5,000 purchasers would realize their investment and be able to live at Marco Island; (2) a larger population at Marco Island would generate better community services for those already living there; (3) job opportunities during and following construction would be made available; and (4) Deltona would place 1,626 acres of its wetland holdings in the public trust pursuant to its agreement with the State of Florida.²⁰¹ The negative effects outlined by the district engineer included: (1) ap-

193. 6 ENV. RPTR.—CURR. DEV. 2143 (1976).

194. Report of the Division Engineer on Application for Dep't of the Army Permits to Dredge and Fill at Marco Island, Collier County, Florida, South Atlantic Division, Corps of Engineers, SADCO-O, Nov. 12, 1975, at 1.

195. 6 ENV. RPTR.—CURR. DEV. 2141 (1976).

196. District Engineer's Report, *supra* note 191, at 5.

197. *Id.* at 12.

198. *Id.* at 2, 4.

199. 6 ENV. RPTR.—CURR. DEV. 2141 (1976).

200. District Engineer's Report, *supra* note 191, at 11. The president of Deltona estimated that these lots were valued at "less than \$40 million." Reed, *Engineers' Ban on Dredging Splits Floridians*, N.Y. Times, May 9, 1976, § 1, at 26, col. 3.

201. District Engineer's Report, *supra* note 191, at 9.

proximately 2,200 acres of mangroves would be permanently removed from the estuarine system; (2) marine communities would be destroyed in the dredge areas; (3) the habitat loss of the primary food chain would reduce commercial and sport fishing; and (4) a precedent would be set making it more difficult to protect other wetland areas.²⁰²

With respect to the Big Key and Barfield Bay applications, the district engineer concluded that the benefits of the proposed work were outweighed by the damage which the work would cause. In his view, the applications merited denial in light of the Corps' policy of preserving wetlands.²⁰³ With respect to the Collier Bay application, he believed that the public interest dictated issuance of a permit. Considerable alteration already had occurred in the Collier Bay permit area, and the 113 acres of mangroves which would be destroyed by the work in that area were considered less ecologically valuable than the more than 2,000 acres of mangrove resources in Big Key and Barfield Bay.²⁰⁴ Moreover, completion of the Collier Bay segment would provide an increased population base at Marco Island "to support some of the facilities master planned for the community."²⁰⁵

The Chief of Engineers accepted the district engineer's recommendation that the Big Key and Barfield Bay permits be denied. In denying the permits, the head of the Corps emphasized the ecological importance of the mangrove wetlands and the need to protect them from unnecessary dredging.

It is my position that a housing/recreational development of the type envisioned in both of these permit applications, which will result in almost total destruction of these wetland areas, is an unnecessary destruction of this wetland resource.

...

The *basic* purpose of this development is housing, and housing, in order to fulfill its *basic* purpose, generally does not have to be located in a water resource. Some have suggested that recreational housing requires such a location. But while a derived benefit of "recreational" housing may be the opportunity to recreate in or near the water resource, the basic purpose of it still remains the same: to provide shelter.²⁰⁶

He noted two other factors that influenced his decision. First, Deltona had failed to demonstrate that there were no other sites or construction

202. *Id.* at 10.

203. *Id.* at 12.

204. *Id.* at 13-14.

205. *Id.* at 14.

206. Report of the Chief of Engineers on Application for Dep't of the Army Permits to Dredge and Fill at Marco Island, Florida, DAEN-CWO-N, Apr. 15, 1976, at 3 (emphasis in original).

alternatives which would not totally destroy the wetlands in Big Key and Barfield Bay.²⁰⁷ Second, the Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration all had taken the position that the filling of the Big Key and Barfield Bay mangrove wetlands "would constitute an unacceptable adverse impact on this aquatic resource."²⁰⁸ The Chief of Engineers did acknowledge that the Marco Island development had been planned and residential lots in the development sold before the environmental movement focused attention on the need to protect natural resources. He pointed out, though, that environmental awareness had caused the Corps to change its decision making, "to the end that the public interest demands more than Federal acquiescence to the complete destruction of a valuable natural resource."²⁰⁹

The Chief of Engineers also agreed with the district engineer's recommendation that the Collier Bay permit be granted. A significant portion of the Collier Bay wetlands already had been destroyed, and those that remained no longer performed valuable ecological functions to the same extent as the Big Key and Barfield Bay wetlands.²¹⁰ Moreover, Collier Bay already had been "so dedicated to development that it would no longer be in the public interest to preclude completion" of the Collier Bay segment of the project.²¹¹ Special conditions designed to mitigate the adverse environmental effects of the Collier Bay work were imposed on the issuance of the permit.²¹²

b. Marco Island: a new trend or an isolated example?

The Marco Island case illustrates what the Corps of Engineers can do under its regulations to protect valuable wetlands resources from destruction. In denying the Big Key and Barfield Bay permits, the Corps fulfilled its responsibility to protect wetlands and exercised its permit authority under section 10 of the Rivers and Harbors Act in an environmentally-sensitive way. As evidenced by this case, the Corps has the leverage, by virtue of its authority under sections 9 and 10, to dramatically affect waterfront development.

Unfortunately, the environmental sensitivity exhibited by the Corps in evaluating Marco Island is not typical. Although some Corps district offices are actively using their permit authority to preserve natural resources, many districts have only a superficial commitment to environ-

207. *Id.*

208. *Id.*

209. *Id.* at 4.

210. *Id.*

211. *Id.*

212. These conditions are outlined in 6 ENV. RPTR.—CURR. DEV. 2142 (1976).

mental protection. It is widely acknowledged among Corps personnel that different districts take a variety of positions on the extent to which environmental impacts must be considered when permit applications are reviewed.²¹³ The main reason for variation among individual districts in their consideration of environmental factors is the decentralized character of the Corps' permit program. The degree of environmental commitment shown by a particular district office is closely related to the interests of the residents of the area. If the people living in the district are concerned about protecting wetlands and they exert pressure to that effect on the district office, the office has a high regard for environmental factors when it evaluates project proposals.²¹⁴ A good example is the Jacksonville District, which processed the Marco Island permit application. Jacksonville is a very environmentally "aware" area; consequently, the district office has developed a reputation for being environmentally aggressive.²¹⁵

In sections 9 and 10, the Corps of Engineers has the tools to become a strong protector of natural resources in the nation's waterways. As yet, these tools have not been used to their full extent. Wetlands serve many important biological functions, and their protection should be a high national priority.²¹⁶ In the Marco Island case, the Corps recognized the importance of wetlands and established what hopefully will be a frequently followed precedent. However, until all Corps district offices follow in practice the environmental policies out-

213. Interviews with unidentified representatives, Army Corps of Engineers, August 1976 (the representatives did not wish to be quoted by name) [hereinafter cited as Corps Interviews]. One district, for example, prepares environmental impact statements only for projects which generate public opposition. This practice clearly is unacceptable under NEPA. The Corps has a responsibility under NEPA to prepare an impact statement for every project which will significantly affect the environment regardless of public response to the project. See, e.g., *Mahelona v. Hawaiian Elec. Co.*, No. 76-0130 (D. Hawaii, filed Aug. 27, 1976). The *Mahelona* decision is discussed in 7 ENV. RPTR.—CURR. DEV. 726 (1976).

214. Corps Interviews, *supra* note 213.

215. *Id.*

216. In 1972, President Nixon underscored the importance of protecting wetlands in his "Environmental Protection" message:

The Nation's coastal and estuarine wetlands are vital to the survival of a wide variety of fish and wildlife; they have an important function in controlling floods and tidal forces; and they contain some of the most beautiful areas left on this continent. These same lands, however, are often some of the most sought-after for development. As a consequence, wetland acreage has been declining as more and more areas are drained and filled for residential, commercial, and industrial projects.

H.R. Doc. No. 92-247, 92d Cong., 2d Sess. 9 (1972). Similar concerns over the need to protect wetlands frequently have been voiced in Congress. E.g., INCREASING PROTECTION FOR OUR WATERS, WETLANDS, AND SHORELINES, *supra* note 111; OUR WATERS AND WETLANDS, *supra* note 154; *Hearings on Estuarine Areas Before the Subcomm. on Fisheries and Wildlife Conservation of the House Comm. on Merchant Marine and Fisheries*, 90th Cong., 1st Sess., ser. 90-3 (1967).

lined in the agency's regulations, the destruction of wetlands will continue and valuable natural resources will be lost forever.

III

ENFORCEMENT

Despite the fact that sections 9 and 10 require permits for construction and development in navigable waters, a substantial number of developers construct works in navigable waters without the required permit from the Corps of Engineers.²¹⁷ The cumulative environmental impact of unauthorized work is significant. Such work usually is done with little concern for mitigating damage to the environment; too often it causes irreversible damage to marshes or tidelands and destroys plant and animal communities.²¹⁸ If sections 9 and 10 are to be effective in protecting the public interest and the environmental quality of water resources, their provisions must be vigorously enforced and their violators brought to justice. The Corps of Engineers bears the primary responsibility for seeking judicial enforcement of sections 9 and 10, although private litigants now are assuming a more important role in bringing enforcement actions. The following discussion explores what can be done to enforce sections 9 and 10 against parties who construct works in navigable waters without the prior approval of the Corps of Engineers. It focuses on the remedies available under the Rivers and Harbors Act and the question of whether private litigants can bring enforcement actions against violators of sections 9 and 10.

A. Remedies

The Rivers and Harbors Act is, first of all, a criminal statute. Any person who violates section 9 or 10 may be fined as much as \$2500 and imprisoned for as long as one year.²¹⁹ The decision to seek a criminal penalty rests with the Department of Justice which, under section 17,²²⁰ has the responsibility for such litigation. These criminal penalties generally are ineffective in preventing illegal construction and protecting

217. For example, in the Puget Sound area in Washington alone there may be as many as 50,000 illegal structures and fills. INCREASING PROTECTION FOR OUR WATERS, WETLANDS, AND SHORELINES, *supra* note 111, at 21.

218. *Id.* at 18.

219. 33 U.S.C. § 406 (1970). This section (section 12 of the Act) provides in relevant part:

Every person and every corporation that shall violate any of the provisions of [sections 9 or 10] . . . shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding \$2,500 nor less than \$500, or by imprisonment (in the case of a natural person) not exceeding one year, or by both such punishments, in the discretion of the court. . . .

220. 33 U.S.C. § 413 (1970).

the environment.²²¹ First, illegal construction in a sense “rewards” the developer since the work can be completed without meeting environmental or other requirements. A law-abiding developer may be forced by the Corps to make costly modifications in construction plans or be denied a permit altogether while the illegal builder has successfully completed a similar project.²²² Second, many violators are large-scale commercial enterprises, and the nominal fines and jail terms available under the Rivers and Harbors Act offer such violators little incentive to change their behavior. In addition to the fact that the criminal penalties themselves are ineffective in deterring illegal construction, the Corps historically has been reluctant to recommend the prosecution of violators.²²³

In terms of civil remedies, the only explicit statutory provision is found in section 12,²²⁴ which grants jurisdiction to district courts to enforce by injunction the removal of structures erected in violation of sections 9 and 10. The courts have construed this section as a mandate to fashion remedies not specifically provided in the Act. In *United States v. Republic Steel Corp.*,²²⁵ the Supreme Court held that injunctive relief is not limited to the removal of structures. The Court upheld an injunction against the discharge of industrial waste solids into a river by the defendants' iron mills. The Court declared that appropriate remedies may be fashioned, and that “detailed codes which provide for every contingency” are not necessary.²²⁶

Congress has legislated and made its purpose clear; it has provided enough federal law in § 10 from which appropriate remedies may be fashioned even though they rest on inferences. Otherwise we impute to Congress a futility inconsistent with the great design of this legislation.²²⁷

The test, according to the Court, is whether the remedy serves an interest defined by the Act.²²⁸

Courts have an array of civil remedies at their disposal to redress violations of sections 9 and 10. Not only can a court enjoin further

221. See *United States v. Joseph G. Moretti, Inc.*, 331 F. Supp. 151, 158, 3 ERC 1052, 1056 (S.D. Fla. 1971): “The criminal sanctions provided by the Rivers and Harbors Act of 1899 are, except in violations of little consequence, inadequate;” Note, *Environmental Law: The Rivers and Harbors Act of 1899—A New Remedy for Illegal Dredge and Fill Operations*, 24 FLA. L. REV. 795, 799 (1972).

222. INCREASING PROTECTION FOR OUR WATERS, WETLANDS, AND SHORELINES, *supra* note 111, at 18.

223. *Id.* at 17-22.

224. 33 U.S.C. § 406 (1970).

225. 362 U.S. 482, 1 ERC 1022 (1960).

226. *Id.* at 492, 1 ERC at 1026.

227. *Id.*

228. *Id.*

activities in violation of section 9 or 10,²²⁹ but it can order the removal of obstructions and the complete restoration of damaged areas.²³⁰ There are precedents for legal remedies as well. The Second Circuit has permitted the government to recover costs expended in the dredging of a canal to remove an unlawful obstruction,²³¹ and a district court in Maryland has permitted private parties to maintain an action for damages resulting from acts in violation of section 10.²³² One early case held that acquittal of a defendant indicted under section 12 for creating an obstruction in violation of section 10 was not a bar to a subsequent civil suit brought by the United States under the same section to compel the defendant to remove the obstruction.²³³

This array of civil remedies has given the government considerable ammunition in enforcement actions brought to protect environmentally valuable coastal areas and wetlands. In *United States v. Joseph G. Moretti, Inc.*,²³⁴ a developer extensively dredged and filled a portion of Florida Bay at Key Largo, Florida, without authorization by the Corps of Engineers. Moretti's dredging destroyed all living mangrove plants in the area and the organic peaty bottom of the Bay, both of which were essential to a healthy marine ecosystem in the Bay.²³⁵ Although repeatedly informed by the government that a permit was required, Moretti completed the damaging work without authorization. The trial court granted a complete removal/restoration order in a civil action brought by the government against the developer.²³⁶ A somewhat less dramatic example is *United States v. Baker*,²³⁷ an enforcement action brought to enjoin the unauthorized filling of a tidal marsh by the New York National Guard. After discussing the ecological value of the marsh, the

229. *E.g.*, *United States v. Diamond*, 6 ERC 1968, 1972-73 (S.D. Ga. 1974), *aff'd*, 512 F.2d 157 (5th Cir. 1975), *cert. denied*, 423 U.S. 928 (1975); *United States v. Lewis*, 355 F. Supp. 1132, 1142, 5 ERC 1198, 1204 (S.D. Ga. 1973).

230. *E.g.*, *United States v. Joseph G. Moretti, Inc. (Moretti I)*, 478 F.2d 418, 430-31 (5th Cir. 1973):

we have no doubt that the issuance of a mandatory injunction requiring extensive restoration operations at very large expense to the developers is entirely within the Court's power as expressly mandated by the statute.

See also United States v. Frank Keegan & Son, Inc., 7 ERC 1527, 1528 (S.D. Fla. 1974); *United States v. Baker*, 2 ERC 1849 (S.D.N.Y. 1971).

231. *United States v. Perma Paving Co.*, 332 F.2d 754, 757-58 (2d Cir. 1964).

232. *Potomac River Ass'n, Inc. v. Lundeborg Maryland Seamanship School, Inc.*, 402 F. Supp. 344, 357, 7 ERC 1945, 1951 (D. Md. 1975).

233. *United States v. Donaldson-Shultz Co.*, 148 F. 581, 585 (C.C.E.D. Va. 1906).

234. 331 F. Supp. 151, 3 ERC 1052 (S.D. Fla. 1971).

235. 331 F. Supp. at 156, 3 ERC at 1054-55.

236. This order has been the subject of continued litigation and twice has been appealed by Moretti to the Fifth Circuit. In February of 1976, the Fifth Circuit remanded the case for an evidentiary hearing on the environmental advisability of the restoration order. *See text accompanying notes 242-44 infra.*

237. 2 ERC 1849 (S.D.N.Y. 1971).

court concluded that the damage to the marsh "would be literally irreparable" if the fill were permitted to remain.²³⁸ It ordered the rapid removal of the fill by the National Guard.

Many recent decisions, while recognizing the broad judicial power to order removal of unlawful obstructions and restoration of damaged areas, have fashioned remedies based on a balancing of the equities and realities of each situation. In *United States v. Sunset Cove, Inc.*,²³⁹ a federal district court ordered the complete removal of an illegal land fill. On appeal, the Ninth Circuit expressed concern over the fairness of requiring the developer to remove the entire fill. "Such an operation is, as a practical matter, far beyond the resources of Sunset or its principals. Here, we believe the court might have tempered the law with a touch of equity."²⁴⁰ The Ninth Circuit modified the judgment by requiring the removal of only as much of the fill as would permit nature, in a reasonable time, to restore the area and reestablish former conditions.²⁴¹

The Fifth Circuit has taken a comparable approach. Not only has it strongly favored balancing the harm done with the practicality of the remedy, but it has emphasized the importance of the trial court's developing a factual record sufficient to justify the remedy chosen. *United States v. Joseph G. Moretti, Inc. (Moretti II)*²⁴² illustrates the Fifth Circuit's view. The court reversed and remanded an order that the defendant undo illegal dredge and fill work and completely restore the surrounding bay to its original condition. Reasoning that the injunction had been entered "without a factual record establishing that the court's choice of restoration was based upon a complete examination of both the environmental factors and the practicalities of the situation,"²⁴³ the court remanded the case for an evidentiary hearing on the environmental advisability of the restoration order.²⁴⁴

This balancing approach gives the courts a good deal of flexibility to tailor the fairest remedy in each individual case. The remedy chosen should depend on the seriousness of the harm caused by the violation and the violator's willingness to comply with the law. Where a de-

238. *Id.* at 1850.

239. 5 ERC 1023 (D. Ore. 1973), *aff'd as modified*, 514 F.2d 1089 (9th Cir. 1975).

240. 514 F.2d at 1090.

241. *Id.*

242. 526 F.2d 1306, 8 ERC 1666 (5th Cir. 1976).

243. *Id.* at 1310, 8 ERC at 1669.

244. See also *United States v. Sexton Cove Estates, Inc.*, 526 F.2d 1293, 1301, 8 ERC 1657, 1663 (5th Cir. 1976), which was decided by the Fifth Circuit the same day as *Moretti II*: "The degree and kind of wrong and the practicality of the remedy must be considered in the formulation of that remedy."

veloper constructs an unlawful obstruction with full knowledge of the law and refuses under all circumstances to apply for a permit, a complete removal/restoration order seems highly appropriate. A more difficult case is presented where the obstruction has been in place for a long time and the Corps has refrained from requiring a permit, or where the offender has relied on some affirmative representation by the Corps that a permit is not required. Corps of Engineers regulations do provide for an "after-the-fact" application procedure for bringing existing but unauthorized obstructions into compliance with the law.²⁴⁵ The existence of this procedure has determined the form of relief granted by several courts confronted with illegal obstructions.²⁴⁶ Of course, the Corps is not obliged to grant an after-the-fact permit, and if it chooses not to do so, the reviewing court must decide what relief is appropriate under the circumstances.

Particularly where the obstruction has been in place for a long time and the Corps has refrained from taking action, or where the Corps has made an affirmative representation that a permit is not necessary, considerations of fairness require that a complete removal/restoration order be issued only in the most compelling of circumstances. This does not mean that the government can be estopped from enforcing the law or from requiring permits for new work in areas where it previously has not exercised jurisdiction.²⁴⁷ It means that the severity of the remedy

245. 33 C.F.R. § 209.120(g)(12)(iii)-(v) (1976).

246. In *United States v. Joseph G. Moretti, Inc. (Moretti I)*, 478 F.2d 418 (5th Cir. 1973), the court found that the dredge and fill operations there in question were illegal, but vacated the district court's injunction ordering removal of the obstructions until such time as the Corps acted upon the landowner's pending application for an after-the-fact permit. 478 F.2d at 425, 432. A somewhat similar view was taken by the Ninth Circuit in *United States v. Sunset Cove, Inc.*, 514 F.2d 1089 (9th Cir. 1975), where the court, after modifying the lower court's order that an illegal fill be completely removed, commented:

The district court may stay its judgment, if it sees fit, for a reasonable time to allow the defendant to apply to the Chief of Engineers for an after-the-fact permit to cover any part of the previous construction the Chief of Engineers may recommend for approval.

514 F.2d at 1090.

247. There is a subtle distinction between estopping the United States from exercising its jurisdiction under the Rivers and Harbors Act and determining what relief is appropriate once a violation has been proven. As a general rule, equitable estoppel cannot be applied against the government to deprive the public of the protection of a statute because of mistake or inaction on the part of an administrative agency. *United States v. San Francisco*, 310 U.S. 16, 31-32 (1940). See also *Utah Power & Light Co. v. United States*, 243 U.S. 389, 409 (1917); *United States v. California*, 332 U.S. 19, 39-40 (1947). However, a court may consider whether there has been some element of reliance by the defendant on the government and fashion a remedy which is fair in light of all the circumstances. For example, if a developer has maintained an unlawful project for many years and the Corps has omitted to take action, the Corps should not be estopped from exercising jurisdiction over the project or over new work which is carried out in connection with the project. However, if the Corps also is seeking to have the

should be tempered with a "touch of equity"²⁴⁸ if the offender has been affirmatively misled or has demonstrated a good-faith effort to comply with the law.²⁴⁹

B. Private Right of Action

Although the primary responsibility for seeking judicial enforcement of sections 9 and 10 rests with the federal government, private parties recently have taken a greater part in bringing enforcement actions against violators of sections 9 and 10.²⁵⁰ This is a welcome development for two reasons. First, it means that more citizens are learning about the Rivers and Harbors Act and its role in environmental protection. Second, it suggests that litigation brought under sections 9 and 10 to remedy environmental harms will continue even if the enforcement efforts of government attorneys lag. While some courts have denied a private right of action under sections 9 and 10,²⁵¹ the prevailing trend is to expand the scope of these two sections to encompass suits brought by private litigants.²⁵² Through the doctrine known as the

project completely removed, its previous inaction should be taken into account and the court probably should not order the removal of the project.

This was the approach taken in *Sierra Club v. Leslie Salt Co.*, 412 F. Supp. 1096 (N.D. Cal. 1976). The court refused to order the removal of dikes which had been constructed without a permit and which had been standing for decades. Prior to the commencement of the litigation the Corps had not asserted jurisdiction over the dikes or the diked areas. The court upheld the exercise of jurisdiction by the Corps over all new work in unfilled portions of diked areas.

248. *United States v. Sunset Cove, Inc.*, 514 F.2d 1089, 1090 (9th Cir. 1975).

249. This approach was suggested by the court in *United States v. Lewis*, 355 F. Supp. 1132, 1142, 5 ERC 1198, 1205 (S.D. Ga. 1973): "In a case where legal concepts such as estoppel and laches are not supported in fact, the underlying circumstances may still be relevant in determining the character of equitable and other relief."

250. It should be emphasized that the focus of this discussion is on enforcement actions, rather than on actions for judicial review of Corps decisions. An enforcement action is a suit brought against a developer who has violated section 9 or 10 by failing to obtain the required permit from the Corps of Engineers. The plaintiff can seek an injunction against further work without a permit, damages for the work already completed, and/or an order for removal of the work already completed.

251. *Red Star Towing & Transportation Co. v. Dep't of Transp.*, 423 F.2d 104, 105 (3d Cir. 1970); *Hooper v. United States*, 331 F. Supp. 1056, 1058 (D. Conn. 1971).

252. *Sierra Club v. Morton (Peripheral Canal)*, 400 F. Supp. 610, 623, 625, 7 ERC 2153, 2157, 2159 (N.D. Cal. 1975); *Potomac River Ass'n, Inc. v. Lundeborg Maryland Seamanship School, Inc.*, 402 F. Supp. 344, 357, 7 ERC 1945, 1951 (D. Md. 1975); *James River and Kanawha Canal Parks, Inc. v. Richmond Metropolitan Authority*, 359 F. Supp. 611, 639, 5 ERC 1353, 1371 (E.D. Va. 1973), *aff'd*, 481 F.2d 1280 (4th Cir. 1973); *Alameda Conservation Ass'n v. California*, 437 F.2d 1087, 2 ERC 1175 (9th Cir. 1971), *cert. denied*, 402 U.S. 908 (1972), *as interpreted by Sierra Club v. Leslie Salt Co.*, 354 F. Supp. 1099, 1104, 4 ERC 1663, 1666 (N.D. Cal. 1972). *See also Lavagnino v. Porto-Mix Concrete, Inc.*, 330 F. Supp. 323, 325-26 (D. Colo. 1971); *Chambers Liberty Counties Navigation Dist. v. Parker Brothers & Co., Inc.*, 263 F. Supp. 602, 607 (S.D. Tex. 1967).

implied cause of action, a private plaintiff should be able to argue that a private right of action is implicit in sections 9 and 10.

An implied cause of action is the judicial implication of a private remedy under a statute not expressly providing for such relief.²⁵³ The basis for the action is the belief that one who is injured by the violation of a statutorily imposed duty should be permitted to obtain civil redress for his injuries where maintenance of the action would further the statute's purposes and would not interfere with the operation of the statutory scheme.²⁵⁴ Securities legislation has been the most fruitful source of implied rights of action,²⁵⁵ but the doctrine has been applied to the Fourth Amendment²⁵⁶ and other statutes as well.²⁵⁷ Where a statute does not expressly provide for a private remedy, the Supreme Court has identified four factors which must be weighed in determining whether a private right of action is implicit in the statute.²⁵⁸ First, is the plaintiff one of the class for whose especial benefit the statute was enacted? Second, is there any indication of legislative intent, explicit or implicit, either to create such a remedy or to deny one? Third, is it consistent with the underlying purposes of the legislative scheme to imply such remedy for the plaintiff? Finally, is the cause of action one traditionally relegated to state law, in an area basically the concern of the states, so that it would be inappropriate to infer a cause of action solely on federal law?²⁵⁹ Analysis of the Rivers and Harbors Act in

253. Note, *Implying Civil Remedies From Federal Regulatory Statutes*, 77 HARV. L. REV. 285 (1963).

The implied right of action should be distinguished from the issue of standing. Standing concerns whether a plaintiff has a sufficient connection with a cause of action to bring a legal proceeding. Before a court can rule on whether a plaintiff has standing to maintain an action, it must determine that a private right of action exists. *Sierra Club v. Morton* (Peripheral Canal), 400 F. Supp. 610, 622 n.7, 7 ERC 2153, 2157 n.7 (N.D. Cal. 1975).

254. *Sierra Club v. Morton* (Peripheral Canal), 400 F. Supp. 610, 622, 7 ERC 2153, 2156 (N.D. Cal. 1975).

255. *E.g.*, *J.I. Case Co. v. Borak*, 377 U.S. 426 (1964) (private right of action under § 14(a) of the Securities Exchange Act of 1934, 15 U.S.C. § 78n(a) (1970)); *Ellis v. Carter*, 291 F.2d 270 (9th Cir. 1961) (private right of action for purchasers of securities under § 10(b) of the Securities Exchange Act of 1934, 15 U.S.C. § 78j(b) (1970)); *Hooper v. Mountain States Sec. Corp.*, 282 F.2d 195 (5th Cir. 1960) (private right of action for sellers of securities under § 10(b) of the Securities Exchange Act of 1934, 15 U.S.C. § 78j(b) (1970)).

256. *Bivens v. Six Unknown Named Agents of Fed. Bureau of Narcotics*, 403 U.S. 388 (1971) (private party may bring action for damages to redress injuries resulting from a violation of the Fourth Amendment by federal officials).

257. *E.g.*, *Allen v. State Bd. of Elections*, 393 U.S. 544 (1969) (private right of action under Voting Rights Act of 1965, 42 U.S.C. § 1973c (1970)); *Tunstall v. Bhd. of Locomotive Firemen and Enginemen*, 323 U.S. 210 (1944) (private right of action under Railway Labor Act, 45 U.S.C. § 151 *et seq.* (1970)).

258. *Cort v. Ash*, 422 U.S. 66 (1975).

259. *Id.* at 78. See *Sec. Investor Protection Corp. v. Barbour*, 421 U.S. 412

light of these factors suggests that a private right of action exists under sections 9 and 10. The only case which has analyzed the Rivers and Harbors Act in terms of this four-part analysis, *Sierra Club v. Morton (Peripheral Canal)*,²⁶⁰ agrees with this conclusion.

The first factor concerns whether the plaintiff belongs to the class for whose especial benefit the statute was enacted. Any user of a navigable water who challenges an unauthorized obstruction to navigation or navigable capacity in that water should meet this test. This view emerges from a review of the legislative history previously discussed.²⁶¹ One of Congress' purposes in enacting sections 9 and 10 was to prevent unauthorized obstructions to navigation and navigable capacity.²⁶² Accordingly, any user of a navigable water who is injured by such an obstruction should be recognized as an appropriate litigant to challenge its legality.

Some courts have taken the view that a private right of action under sections 9 and 10 is limited to actions for injury to navigational interests.²⁶³ This view is unduly restrictive considering the broad range of activities now protected by sections 9 and 10. We have already seen, for example, that section 9 and 10 permits may be denied on other than navigational grounds.²⁶⁴ It would be inconsistent with the broad reach of the statute to foreclose litigants from bringing suit under its provisions simply because they seek to remedy environmental, rather than navigational, injuries. The better view implies a cause of action in favor of any user of a navigable water injured by a violation of section 9 or 10, regardless of the nature of the injury.²⁶⁵

(1975); *Nat'l R.R. Passenger Corp. v. Nat'l Ass'n of R.R. Passengers*, 414 U.S. 453 (1974).

260. 400 F. Supp. 610, 7 ERC 2153 (N.D. Cal. 1975). This case currently is on appeal before the Ninth Circuit. *Appeal docketed*, No. 76-1464, 9th Cir., Mar. 9, 1976; No. 76-1494, 9th Cir., Mar. 11, 1976; No. 76-1534, 9th Cir., Mar. 15, 1976; No. 76-1651, 9th Cir., Mar. 16, 1976; No. 76-1663, 9th Cir., Mar. 13, 1976; No. 76-1981, 9th Cir., May 4, 1976.

261. See text accompanying notes 10-33 *supra*. See also *Neches Canal Co. v. Miller & Vidor Lumber Co.*, 24 F.2d 763, 765 (5th Cir. 1928).

262. See *Sierra Club v. Morton (Peripheral Canal)*, 400 F. Supp. 610, 623, 7 ERC 2153, 2157 (N.D. Cal. 1975).

263. In *Potomac River Ass'n, Inc. v. Lundeberg Maryland Seamanship School, Inc.*, 402 F. Supp. 344, 7 ERC 1945 (D. Md. 1975), the court rejected the contention that the Act should protect environmental rights in addition to navigational interests. "[S]ince the original purpose of the Act was to protect navigation, the Act should not be tortured into interpretations which satisfy legislative needs which have not yet been fulfilled." 402 F. Supp. at 358, 7 ERC at 1951. *Lavagnino v. Porto-Mix Concrete, Inc.*, 330 F. Supp. 323, 325-26 (D. Colo. 1971), and *Chambers-Liberty Counties Navigation Dist. v. Parker Brothers & Co., Inc.*, 263 F. Supp. 602, 607 (S.D. Tex. 1967), similarly hold that a private right of action under the Act is limited to actions for injury to navigational interests.

264. See text accompanying notes 169-88 *supra*.

265. Cases so holding include *Sierra Club v. Morton (Peripheral Canal)*, 400 F.

A second factor to consider is whether Congress intended to create or preclude a private right of action. Nothing in the legislative history of sections 9 and 10 indicates a congressional intent to create or preclude a private right of action.²⁶⁶ Nowhere in any congressional document which comprises the legislative history is there any evidence that Congress intended to foreclose actions by private litigants. The language of the Rivers and Harbors Act similarly contains no evidence of congressional intent to preclude private causes of action under sections 9 and 10. This conclusion follows from an analysis of the enforcement provisions of the Act. Section 12 makes violation of sections 9 and 10 a misdemeanor and further provides that:

... the removal of any structures or parts of structures erected in violation of the provisions of said sections may be enforced by the injunction of any district court exercising jurisdiction in any district in which such structures may exist, and proper proceedings to this end may be instituted under the direction of the Attorney General of the United States.²⁶⁷

A careful reading of this section reveals no language expressly prohibiting private causes of action. The jurisdictional grant to the district courts authorizes them to order the removal of structures erected "in violation of" sections 9 and 10. As the court noted in the *Peripheral Canal* case, this jurisdictional grant seems "to encompass *all* injunctive suits, both private and governmental."²⁶⁸ Additionally, while the section provides that the Attorney General *may* institute injunctive proceedings, it does not preclude private litigants from initiating comparable action. A persuasive precedent in this regard is the Supreme Court's decision in *Allen v. State Board of Elections*.²⁶⁹ In that case, the Court held that a similar provision for enforcement of the Voting Rights Act by the Attorney General did not foreclose a private right of action.²⁷⁰

Supp. 610, 623, 625, 7 ERC 2153, 2157, 2159 (N.D. Cal. 1975); *James River and Kanawha Canal Parks, Inc. v. Richmond Metropolitan Authority*, 359 F. Supp. 611, 639, 5 ERC 1353, 1371 (E.D. Va. 1973), *aff'd*, 481 F.2d 1280 (4th Cir. 1973); *Alameda Conservation Ass'n v. California*, 437 F.2d 1087, 2 ERC 1175 (9th Cir. 1971), *cert. denied*, 402 U.S. 908 (1972), *as interpreted by* *Sierra Club v. Leslie Salt Co.*, 354 F. Supp. 1099, 1104, 4 ERC 1663, 1666 (N.D. Cal. 1972).

266. *Sierra Club v. Morton (Peripheral Canal)*, 400 F. Supp. 610, 623, 7 ERC 2153, 2157 (N.D. Cal. 1975).

267. 33 U.S.C. § 406 (1970).

268. *Sierra Club v. Morton (Peripheral Canal)*, 400 F. Supp. 610, 624, 7 ERC 2153, 2157 (N.D. Cal. 1975) (emphasis added).

269. 393 U.S. 544 (1969).

270. *Allen* involved a statutory enforcement scheme strikingly similar to that found in the Rivers and Harbors Act. 42 U.S.C. § 1973j(f) provided that the district courts would have jurisdiction over proceedings brought pursuant to the Voting Rights Act of 1965. 42 U.S.C. § 1973j(d) provided that the Attorney General could bring actions for

One additional enforcement provision of the Act deserves some mention at this point. Section 17 provides in part that the Department of Justice "shall conduct the legal proceedings necessary to enforce" sections 9 and 10.²⁷¹ Although this provision could be read to preclude all legal action by private parties, it has been construed to apply only to criminal enforcement.²⁷² While the courts have viewed this provision as evidence that Congress intended to vest in the Attorney General exclusive authority to redress public injuries, they have resisted most efforts to impart a comparable congressional intent with respect to private injuries.²⁷³

The third factor the Supreme Court has deemed relevant to the implication of a private right of action is whether the allowance of such an action is consistent with the underlying purposes of the legislative scheme. Private enforcement actions complement federal enforcement of sections 9 and 10 and are consistent with the underlying purposes of the Rivers and Harbors Act. First, permitting private parties to bring enforcement actions increases the likelihood of compliance with sections 9 and 10. Because of the availability of a private remedy, victims of statutory violations have an incentive to assist in the enforcement of the two sections. Second, the government's resources are too limited to enforce sections 9 and 10 against every violator.²⁷⁴ As the district court observed in *United States v. Lewis*, "The Corps of Engineers cannot inspect every foot of tidal marshland in its jurisdiction to make sure that nobody is violating the law."²⁷⁵ Many injuries would go unredressed if citizens injured by statutory violations were forced to rely solely on litigation instituted by the government. Finally, local political and economic forces may be brought to bear against the government's filing of injunctive proceedings against violators. In sum, if a private right of action were not implied, sections 9 and 10 would be highly ineffective in remedying the very harms the statute was designed to protect against.²⁷⁶

The fourth and final consideration which must be taken into account hinges on whether the implied cause of action is one which

preventive relief against persons engaged in acts prohibited by the Voting Rights Act. The Court found that the protection guaranteed by the statute "might well prove an empty promise" unless private citizens were allowed to bring actions. 393 U.S. at 557.

271. 33 U.S.C. § 413 (1970).

272. *Sierra Club v. Morton* (Peripheral Canal), 400 F. Supp. 610, 624, 7 ERC 2153, 2158 (N.D. Cal. 1975).

273. See *id.*; *James River and Kanawha Canal Parks, Inc. v. Richmond Metropolitan Authority*, 359 F. Supp. 611, 638-39, 5 ERC 1353, 1371 (E.D. Va. 1973), *aff'd*, 481 F.2d 1280 (4th Cir. 1973).

274. *Sierra Club v. Morton* (Peripheral Canal), 400 F. Supp. 610, 625, 7 ERC 2153, 2158 (N. D. Cal. 1975).

275. 355 F. Supp. 1132, 1142, 5 ERC 1198, 1204 (S.D. Ga. 1973).

276. Cf. *Allen v. State Bd. of Elections*, 393 U.S. 544, 556-57 (1969).

traditionally is relegated to state law in an area basically the concern of the states. The interest which private plaintiffs seek to vindicate under sections 9 and 10 entails important questions of federal law. There is a strong federal interest not only in keeping navigable waters open and unobstructed,²⁷⁷ but in protecting them from environmental harm. While a plaintiff injured by obstructions to navigation or navigable capacity might have some chance of pursuing relief in a state court under a theory of common law nuisance,²⁷⁸ the redressing of this type of injury is not primarily an area of state concern.²⁷⁹ It would be entirely inappropriate, given the predominant federal interest in navigable waters, to deny a federal forum to private parties injured by violations of sections 9 and 10.

The purpose of the preceding four-part analysis has been to show that there exists a basis for suits by private parties under sections 9 and 10 of the Rivers and Harbors Act. Three of the four factors identified by the Supreme Court support the implication of a private right of action. Such an action aids the intended beneficiaries of the Act, furthers the underlying purposes of the legislative scheme, and provides injured parties a forum in an area dominated by federal law. The fourth factor, legislative intent, cannot be read as either endorsing or opposing the implication of a private right of action. Although the initiation of section 9 and 10 litigation by private litigants has been limited thus far,²⁸⁰ it is hoped that this analysis will encourage more private parties to institute such actions. Further, since the range of interests protected by sections 9 and 10 has expanded to include natural resources, fish and wildlife, recreation, and the needs and welfare of the people, courts should be expected to look favorably on private actions designed to accomplish environmentally desirable results.

CONCLUSION

In recent years, sections 9 and 10 of the Rivers and Harbors Act of 1899 have become potent tools for the protection of environmental resources in the nation's waters. Due to congressional enactment of NEPA and the Fish and Wildlife Coordination Act, along with liberal judicial and administrative interpretation, sections 9 and 10 of the Act

277. *Sierra Club v. Morton* (Peripheral Canal), 400 F. Supp. 610, 625, 7 ERC 2153, 2159 (N.D. Cal. 1975).

278. W. PROSSER, *THE LAW OF TORTS* § 89 (4th ed. 1971).

279. *Sierra Club v. Morton* (Peripheral Canal), 400 F. Supp. 610, 625, 7 ERC 2153, 2159 (N.D. Cal. 1975).

280. See note 252 *supra* for a list of cases in which private litigants have been permitted to maintain enforcement actions under section 9 or 10. See note 265 *supra* for a list of environmental cases in which private litigants have been permitted to maintain such enforcement actions.

now serve purposes which were totally unforeseen by the nineteenth century drafters of the legislation. The courts have been receptive to new and unusual applications of these two sections to environmental problems, and the Act seems destined to continue its evolution as an environmental statute.

Against this promising background stands the reality that sections 9 and 10 can go only so far in preserving environmental resources. Because the statute was not designed to remedy the environmental ills of the nation's waters, it does not reach the whole spectrum of ecologically adverse activities. Moreover, the role of sections 9 and 10 in protecting the environment hinges on the Corps of Engineers' willingness to use them for that purpose. Once the Corps issues a permit for a project, even one that will have disastrous environmental consequences, sections 9 and 10 no longer can be used to challenge the legality of the project.²⁸¹

As a practical matter, these drawbacks have not posed serious problems. First, even though sections 9 and 10 cannot correct every environmental evil, the two sections do cover a significant range of activities which adversely affect water resources. Second, there are encouraging signs that at least some district offices of the Corps of Engineers are using their section 9 and 10 permit authority in an environmentally responsible manner. Finally, judicial implication of a private right of action has paved the way for private litigants to challenge the legality of environmentally-damaging projects constructed without proper authorization. As a result, sections 9 and 10 can help protect and restore the nation's valuable water resources.

281. Only a project which is constructed without a permit is illegal. Consequently, an enforcement action is not available once a permit is granted. The possibility of seeking judicial review of a Corps decision to grant a permit remains, although actions for judicial review generally have proven unsuccessful. See note 250 *supra*.

