Oil Pollution Problems Arising out of Exploitation of the Continental Shelf: The Santa Barbara Disaster

DAVID J. WALMSLEY*

INTRODUCTION

The familiar tidal process of flow and ebb¹ provides a fitting metaphor from which to launch a discussion of an historical development in the law of the sea. The flood tide of free seas began its shoreward roll when the 17th century question of whether individual nations might acquire dominion over the sea² was answered in 1702 with the assertion that "no sea is held today under the dominion of any prince."³ Because of the coastal states' ability to

* A.B., Univ. Southern California, 1964; J.D., Harvard, 1969; formerly with Milbank, Tweed, Hadley and McCloy, New York.

1. R. CARSON, THE EDGE OF THE SEA 27 (1955).

3. C. BYNKERSHOEK, DE DOMINIO MARIS DISSERTATIO 60 (R. Magoffin transl., J. Scott ed. 1923).

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^{2.} This question gave rise to the Grotius-Selden Controversy wherein Selden, in his work, MARE CLAUSUM (1635), held that dominion over the sea was legally possible (subtitle: MARE EX JURE NATURAE SEU GENTIUM OMNIUM HOMINUM NON ESSE COMMUNE SED DOMINII PRIVATI SEU PROPRIETIS CAPEX PARITER AC TELLUREM), while Grotius insisted that no nation could acquire a dominion over the sea. H. GROTIUS, MARE LIBERUMI (1609). For a discussion of the Grotius-Selden Controversy see P. POTTER, THE FREEDOM OF THE SEAS 57-80 (1924).

maintain "command and possession" over a maritime belt "as far as a cannon will carry,"⁴ the territorial sea was early recognized as an exception to the notion that "the sea, viewed either as a whole or in its principal parts, cannot become subject to private ownership."⁵ Additionally, "it was quickly discovered that the occasional exercise of some exclusive authority beyond this belt had necessarily to be honored. . . ."⁶ It was not until 1945, though, that the free seas began their ebb from the shores:⁷ in that year President Truman proclaimed that ". . . the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States . . . [are] subject to its jurisdiction and control."⁸

This assertion of "sovereign rights," acquiesced in by most states⁹ and codified in the 1958 Convention on the Continental Shelf,¹⁰ had as its purpose the encouragement of efforts to discover and to make available new supplies of petroleum and other minerals¹¹ buried in the earth beneath the high seas. By January of 1969, the exploitation of offshore petroleum deposits was progressing in earnest at

4. Id. at 44. See also Kent, The Historical Origin of the Three Mile Limit, 48 AM. J. INT'L L. 537 (1954), and Walker, Territorial Waters: The Cannon Shot Rule, 22 BRIT. Y. B. INT'L L. 210 (1945). As the two preceding authorities point out, the "cannon-shot" rule is an oversimplification. 5. H. GROTTUS, DE JURE BELLI AC PACIS LIERT TRES 190 (F. Kelsey transl. 1925). Grotius, too, recognized this exception: "It seems clear, moreover,

5. H. GROTTUS, DE JURE BELLI AC PACIS LIBRI TRES 190 (F. Kelsey transl. 1925). Grotius, too, recognized this exception: "It seems clear, moreover, that sovereignty over a part of the sea is acquired in the same way as sovereignty elsewhere, that is, as we have said above, through the instrumentality of persons and of territory." *Id.* at 214.

mentality of persons and of territory." *Id.* at 214. 6. M. McDougaL & W. Burke, The PUBLIC ORDER OF THE OCEANS 2 (1962). "Other Acts of Parliament which fix limits of jurisdiction beyond three miles from the shore include those relating to smuggling, the public health, and slave ships. . . "The United States in 1799 extended its jurisdiction for such purposes to four leagues from the coast, and in 1807, in an Act against the importation of slaves, the seizure of vessels laden with certain cargoes within that distance was also authorized." T. FULTON, THE SOVEREIGNTY OF THE SEA 593 (1911).

7. More correctly, from the territorial sea.

8. Presidential Proc. No. 2667, Sept. 28, 1945, 59 STAT. 884 (1945).

9. "[E]xploitation of the subsoil by the adjoining country was widely accepted." Edelman, Liability Problems in the Exploitation of the Seas, 5 TRIAL LAW. Q. 43, 48 (1968).

10. Convention on the Continental Shelf, done at Geneva, April 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311. "The Convention represented the consensus of the nations and the final vote was 57 in favor, only 3 against and 8 abstentions." Edelman, *supra* note 9, at 49.

11. Presidential Proc., supra note 8.

numerous sites on the United States' continental shelves.¹²

Then, despite the many assurances¹³ that there was "nothing to fear"¹⁴ about offshore drilling, Well 21 on Platform A, Parcel 402,¹⁵ anchored six miles off the California coast¹⁶ in the Santa Barbara Channel, "blew" on January 28, 1969,17 and for the next eleven days reddish-brown crude oil bubbled into the blue Pacific at a rate of nearly 1,000 gallons per hour.¹⁸ This dramatic event.¹⁹ "The Oil Disaster of 1969,"20 raises not only urgent questions about the ade-

12. "There are more than 12,000 oil wells off the U.S. coasts, and the number is increasing by more than 1,400 per year." COMMISSION ON MARINE SCIENCE, ENGINEERING AND RESOURCES, OUR NATION AND THE SEA, H.R. Doc. No. 91-42, 91st Cong., 1st Sess., 74 (1969) (hereinafter cited as: COMMISSION REPORT). "Offshore oil production is second only to fish as a source of marine resource revenue." Id. at 83.

13. In response to a 1963 questionnaire from the Intergovernmental Maritime Consultative Organization, the United States, after listing what were believed to be the primary sources of pollution, ended with the assertion that, . . . there is no evidence that off-shore drilling has, in anyway, contributed to the pollution of the sea." INTERGOVERNMENTAL MARITIME CONSULTATIVE ORGANIZATION, POLLUTION OF THE SEA BY OIL, RESULTS OF AN INQUIRY MADE IN 1963, at 103 (1964). This view still prevailed in 1967, when Secretary of the Interior Udall assured apprehensive Santa Barbara officials "that the Federal Government would keep a close eye on the drilling. 'Always, Interior and Oil officials led us to believe we had nothing to fear,' says Santa Barbara County Supervisor George Clyde." TIME, Feb. 14, 1969, at 23. Supervisor Clyde reiterated the point before the California State Senate Natural Resources and Governmental Efficiency Committee on February 18, 1969: "... but always the Interior Department and oil industry officials led us to believe we had nothing to fear. They said they had perfected shut-off devices that were foolproof, even in such disasters as a ship running into the platform or an earthquake." Interestingly enough, the Commission on Marine Science, Engineering and Resources recognized that ". . . despite the careful safety measures of the industry, well blowouts, pipeline leaks, operator carelessness, and storm damage still can cause serious damage." COMMISSION REPORT, at 74.

14. TIME, Feb. 14, 1959, at 23.

15. D. Bickmore, Statement prepared for presentation before the Subcomm. on Air and Water Pollution of the Sen. Comm. on Public Works, 91st Cong., 1st Sess. 3 (Feb. 24, 1969). See supra note 14. 16. N.Y. Times, Feb. 2, 1969, at 54, col. 2.

17. "What had happened was that last Tuesday morning [January 28] a drill had cut a hole into a high-pressure deposit of oil and gas. Withdrawing the drill to renew the worn bit was like pulling a cork out of a bottle." Id.

18. TIME, Feb. 14, 1969, at 23. "A total of a quarter of a million gallons had poured into the water, by Union Oil's estimates. Other qualified per-sons said the estimate was grossly low." The Oil Disaster of 1969, Santa Barbara News-Press, Mar. 7, 1969 (Special Supplement), at 2, col. 1.

19. It is of interest to note that Secretary Udall once characterized offshore drilling, inter alia, as ". . . not as dramatic a source of pollution as transport." WATER POLLUTION-1967 (Part 1), HEARINGS ON S. 1591, S. 1604, S. 1870. AND S. 1341 BEFORE THE SUB-COMM ON AIR AND WATER POLLUTION OF THE SENATE COMM. ON PUBLIC WORKS, 90th Cong., 1st Sess. 237 (1967).

20. Santa Barbara News-Press, supra note 18, at 1, col. 1.

quacy of governmental controls of offshore drilling but also the larger question of the legal system's capacity for conflict resolution in a setting of ancient doctrine and rapid technological advance.

In essence, the Santa Barbara disaster is but another example of a phenomenon which affects all life on earth in the twentieth century: environmental pollution wrought by unimpeded, or at best inadequately impeded, technological advancement. If this were all that the disaster entailed, it would merit little more than a footnote or a paragraph in a comprehensive study of the large problem. But, as will be revealed in the pages following, Santa Barbara's problem is unique since it casts into relief a wide spectrum of legal, political, and economic considerations which are in desperate need of examination.²¹ As such, it provides a case study raising many questions, the answers to which will have broad implications for the whole area of environmental quality. The first step in such an analysis, then, is to define the characters and the setting in which they interact.

Ι

A. Santa Barbara

Santa Barbara county seat of Santa Barbara County, and one of the world's most beautiful and wealthy small cities, is situated on the coastal shelf between the Pacific Ocean and the Santa Ynez Mountains, . . . It is the all-year-around equivalent of Bar Harbor and Newport in the East, and is chiefly famous for its equable climate, its uniformity of architecture, and its prosperous growth although isolated from any fostering industrial centers. It is a city of many contradictions and each charming, a bit of Old Spain and of New America and of the very heart of California all blended as harmoniously as one of its own magnificent sunsets.

The city has no skyline—in the American sense of the word. Seen from the ocean front, the most conspicuous features are redtiled or green roofs, white stucco walls, vividly green tropical trees, and everywhere the polychromatic glow of flowers.

^{21.} One student of the problems of the twentieth century has characterized the Santa Barbara disaster as a signal event since the community response to the oil slick was, in his view, what is needed if man is to avoid the "flight of the dodo into extinction." People must be made angry at what is happening to their environment; the ". . . reaction that occurred in Santa Barbara recently, as a consequence of the oil slick, is the sort of thing that is going to happen more frequently and more dramatically in the years ahead." N.Y. Times, April 7, 1969, at 10, col. 1 (quoting Prof. Richard A. Falk).

Architectural design of public and commercial buildings, even of most of the houses, is of a type now becoming known as the California Style.

Santa Barbara's chief business is simply being Santa Barbara. Her cool, healthful climate, the sea and the mountains attract people of wealth, social position, and leisure.

[T]he average Santa Barbaran and his wife and children are the people who make the city what it is. They voted the bonds with which to buy the ocean front; they worked for the elimination of billboards; they tend their gardens, keep their lawns looking like green Tientsin rugs, trim their hedges, and keep the corners clean. They are proud of themselves and of their city.²²

It is only natural that the citizens of Santa Barbara would want to preserve this idyllic setting. Several significant legislative events demonstrate their concern. In order to prevent the erection of unsightly offshore drilling rigs along the prized Santa Barbara coast, the Cunningham-Shell Act was enacted in 1955 by the California Legislature.²³ Among other things, it created a sanctuary sixteen miles long and extending three miles out from the coast where no drilling would be allowed.²⁴ Because the Act provided that drilling would be permitted if the underlying deposits were being drained by wells adjacent to the sanctuary,²⁶ the City and County of Santa Barbara enacted zoning controls prohibiting shore-based oil extraction along the length of the sixteen mile border.²⁶ Then in 1968, when the Planning Commission and Board of

23. Ch. 1724, [1955] CAL. STAT. 3165, now in CAL. PUB. RES. CODE ANN. §§ 6871-6878 (West 1956). See discussion cited in notes 114 et seq., infra.

24. Id. § 16(b) or § 6871.2(b).
25. Id. § 6872.1.
26. R. Whitehead, Notes prepared for presentation before Sub-comm. on Air and Water Pollution of the Senate Comm. on Public Works, 91st Cong., 1st Sess. 2 (Feb. 5, 1969). The problem is that the Santa Barbarans can only insure that the submarine oil fields are not drained by onshore wells. They have no control over drilling beyond the territorial sea, i.e., drilling by Federal lessees. Through application of some pressure on Washington, the local citizens were able to get the Department of the Interior to create a two mile "buffer zone" beyond the sanctuary in the high seas. TIME Feb. 14, 1969, at 23. County Supervisor George Clyde described the events thusly:

Early in 1966, we heard that the Federal Government planned to lease sometime soon, probably in 1967. In December, 1966, the Federal Government granted a single lease to Phillips on grounds that this area was being drained by the Standard lease on State land.

On February 28, 1967, a group of County officials, of which I was a member, and representatives from the cities of Carpinteria and Santa Barbara held a conference in Washington with Assistant Secretary of Interior for Mineral Resources, J. Cordell Moore, and his staff. The purpose of this conference was to impress upon

^{22.} SOUTHERN CALIFORNIA WRITERS' PROJECT OF THE WORKS PROGRESS AD-MINISTRATION, SANTA BARBARA 56-59 (1941).

Supervisors adopted an ordinance permitting construction of a processing plant to service drilling platforms on the outer continental

Interior Department officials the concern of the people of Santa Barbara County that uncontrolled construction of platforms would have a detrimental effect on the esthetic values of the South Coast area, resulting in irreparable harm to the tourist, convention and vacation industry, as well as affecting the desirability of the area from a residential standpoint. In addition, it was pointed out that unless the Federal Government prohibited drilling near the Sanctuary, the Sanctuary would probably be opened to drilling by the State.

On May I, 1967, we asked for a moratorium of one year (a request which was never answered) so that we could study all ramifications of leasing.

In mid-May, 1967, Assistant Secretary Moore and staff made a trip to Santa Barbara, inspected the area and met with local officials. Again we made our plea for a year's time to study all aspects of the proposed leasing program.

On September 22, 1967, Assistant Secretary of the Interior for Public Land Management, Harry R. Anderson, came to Santa Barbara and said what the Federal Government was willing to do. It boiled down to a two-mile wide zone to protect the Sanctuary—a buffer zone that is only good as long as Interior allows it. Secretary Anderson wanted our comments within a "very few days." Interior wanted to advertise for bids around October 15th.

Interior wanted to advertise for blds around October 1sti. In answer to our pleas for six months to study the proposals, we were given 60 days by Secretary Udall. During that interval, we prepared a study, which I will file with you, and we went once again to Washington in late November, 1967. We asked for an extension of the buffer zone eastward to further protect the Sanctuary which, incidentally, if it had been granted would have prevented the drilling of this particular well. We also asked for a much smaller area to be leased so that future technological developments could provide for underwater completions—particularly close to shore. We also asked for measures to reduce the number of platforms. None of our major requests were granted except the original buffer zone.

G. Clyde, Statement before State Sen. Natural Resources and Governmental Efficiency Committee 1-3 (Feb. 18, 1969).

On March 21, 1969, Secretary Hickel announced, inter alia, the following:

The second major action I am taking today is the signing of an order which turns the existing two-mile buffer opposite the Santa Barbara State Oil Sanctuary into a permanent ecological preserve... Until today this area has had no legal status. The new Santa Barbara Ecological Preserve is 21,000 acres. It is in-habited by numerous species of fish and shell fish. This area, ... is extremely valuable for fishing and other recreational uses. In addition, all unleased areas south of the Santa Barbara Ecological Preserve will be held as an additional buffer zone. No drilling or production will be permitted in this 34,000 acres. The buffer will help protect the Preserve and maintain the scenic view from Santa Barbara. The Ecological Preserve and its buffer thus will total 55,000 acres.

About half of the remaining Federal lands in the channel are not leased. Before any consideration is given to leasing these areas, shelf, the voters reacted by rescinding the ordinance in a referendum.²⁷ All of this indicates the determination of Santa Barbarans to preserve their living, working, and recreational environment.²⁸

Naturally, there are also economic forces behind the desire to keep the setting unspoilt: since the spot is so ideal, many visitors are attracted to it and this alone accounts for 60 percent of the local income. An additional 20 percent is derived from so-called "clean-industries"—*i.e.*, research and development outfits—which are also attracted by the environmental assets.²⁹

Most of Santa Barbara's area of sixteen square miles is included on a narrow coastal shelf which skirts the Pacific where California's coastline assumes a general east-west direction. About thirty miles south, a string of four Channel Islands lying almost parallel to the coast, breaks the destructive force of heavy seas and forms the outer boundary of a deep channel used as a coastal shipping lane.³⁰

Besides being environmentally unique, this area is also unique from a geological standpoint. A Santa Barbara County Petroleum Engineer has described the area thusly:

The Santa Barbara Channel is situated within the geomorphic province of Southern California known as the Transverse Range. These are a series of east-west trending mountain and valley systems that lie in a contrary position to the otherwise northwestsoutheast structural and topographic trend of California. One can visualize this area as a gigantic bowl, with the Santa Ynez mountains on the north, the San Gabriel mountains to the east and the Santa Monica mountains and their seaward extension called the Channel Islands to the south. The west end of the basin extends into the open sea. The larger portion (approximately two-thirds) is known as the Sanata Barbara Channel. Since it is covered by water, much of the complex geology can be inferred by a detailed study of the surface geology of the Ventura basin. This data reveals a series of tight folds which are badly faulted. Several of these features have been projected and followed seaward from the Ventura Basin into the Santa Barbara Channel.

Further study of the surface geology of the Channel Islands to

the public will be consulted and its recommendations carefully considered.

Statement by Secretary of the Interior, Walter J. Hickel, Dept. of the Interior, News Release, at 3 (March 21, 1969).

27. Whitehead, supra note 26, at 4.

28. Santa Barbara News-Press, supra note 18.

29. "Eighty percent of our economy on the South Coast is based on our environment—we draw tourists and residents from all walks of life—we have a flourishing University of California campus and numerous highly technical research and "think' factories." G. Clyde, Statement before Subcommittee on Air and Water Pollution of the Sen. Comm. on Public Works, 91st Cong., 1st Sess. 3 (February 24, 1969). Whitehead, supra note 26, at 3.

30. Southern California Writer's Project, supra note 22, at 60.

the south and the Santa Ynez mountains to the north reveals badly broken, crushed and faulted rocks.

To the center of this huge bowl, the ocean floor falls off rapidly, reaching a water depth of over 2,000 feet at its deepest part.

Major faults can be traced through the Channel. Many of these must be assumed to be active as indicated by the 1925 earthquake and numerous more recent smaller tremors.³¹

Given these facts—that Santa Barbarans are especially jealous about preserving their environment, that the local economy is dependent upon its preservation, that the geological structure is at best questionable and little is to be gained locally by offshore drilling³²—it is understandable that a storm of protest arose when the Federal Government in early 1966 made known its plans to offer oil leases on the adjacent outer continental shelf.³³ In addition to the fact that the Federal lessees' platforms would constitute "eye-sores," there were fears that the leasing of Federal lands would render State and local legislative efforts null since the State would probably begin to grant leases in the sanctuary to guard against drain-off by the adjacent Federal lessees' operations.³⁴ At about this same time, the memory of the damage wrought by the *Torrey* Canuon disaster³⁵ was fresh in the minds of the local citizenry: but their fears about oil pollution from offshore drilling were largely dismissed by officialdom.³⁶ Despite protests, the Government in February, 1968, advertised 110 blocks of seabed area containing 5,700 acres each and received bids totalling \$603 million for 75 of them.³⁷ The bidders for these blocks were large American oil companies; these lessees, along with the Federal Government lessor, are the two remaining major characters in the Santa Barbara drama.

34. See note 26, supra.

35. For a discussion of this disaster and the legal problems engendered thereby see Nanda, The "Torrey Canyon" Disaster: Some Legal Aspects, 44 DENV. L. J. 400 (1967).

36. N.Y. Times, Feb. 2, 1969, at 1, col. 1. 37. Id. "The highest bid was from a combine of Gulf, Texaco, Mobil and Union Oil Companies on Parcel 402, for \$61.4 million. It is on this parcel that the disaster occurred." See Whitehead, supra note 26, at 4.

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^{31.} Bickmore, supra note 15, at 1-2.

^{32. &}quot;[T]he oil industry contributes only 2% to the basic income of the South Coastal Area." Whitehead, supra note 26, at 3. N.Y. Times, Feb. 2, 1969, at 1, col. 1.

^{33.} See note 26, supra, TIME, Feb. 14, 1969, at 23; N.Y. Times, Feb. 2. 1968, at 1, col. 1.

B. The Off Shore Oil Industry

The Federal government, as the nation's largest land owner, exercises considerable supervisory control over oil and gas operations upon its lands. The United States Department of the Interior. established in 1848, is charged with administering over these federal lands with respect to oil and gas leasing,38 exploration, development and production.³⁹ This is done through two offices of the Department: the Bureau of Land Management, which handles the leasing of public lands⁴⁰ and the Geological Survey, which, through its Conservation Division, supervises the extraction of minerals, oil and gas from the leased lands.⁴¹ Under this arrangement. by 1963 nearly 125,000 leases, comprising over 87 million acres of public land, were outstanding.42

In 1953, Congress declared⁴³ that "(1) title to and ownership of the lands beneath navigable waters within the boundaries of the respective States, and the natural resources within such lands and waters, and (2) the right and power to manage, administer, lease, develop, and use the said lands and natural resources . . . are . . . vested in . . . the respective States "44

Three months later Congress enacted the Outer Continental Shelf Lands Act of 1953,45 which formally extended seaward the United States' jurisdiction over the continental shelf from the offshore boundaries of the coastal States.⁴⁶ Among other things, the Act authorizes the Secretary of the Interior "to grant to the highest . . . bidder . . . oil and gas leases on submerged lands of the outer Continental Shelf "47 By 1963 the Federal Government had let over 3 1/2 million acres of seabed off the Florida, Louisiana and Texas coasts to 846 lessees.⁴⁸ By 1969, the number had climbed to

- 44. Id. § 1311 (a).
 45. 43 U.S.C. §§ 1331-1343.
 46. Id. § 1332 (a).

^{38.} The Mineral Leasing Act of 1920, 30 U.S.C. §§ 181 et seq., authorizes the Secretary of the Interior to lease the public lands for the development and production of oil, gas and certain other minerals.

^{39.} DEP'T OF THE INTERIOR, PLAIN FACTS ABOUT OIL 21 (1963).

^{40.} Id. at 25.

^{41.} DEP'T OF THE INTERIOR, U.S. GEOLOGICAL SURVEY 10 (un-dated pamphlet).

^{42.} DEPARTMENT OF THE INTERIOR, supra note 39, at 24.

^{43. 43} U.S.C. §§ 1301-1315.

^{47.} Id. § 1334(a) (1). While one would expect that the Mineral Leasing Act of 1920 might authorize the Secretary to lease offshore submerged lands (see supra note 38), Justheim v. McKay, 229 F.2d 29 (D.C. Cir. 1956), cert. den. 351 U.S. 933 (1956), held otherwise.

^{48.} DEP'T OF THE INTERIOR, supra note 39, at 25.

1,000 including the 71 leases off Santa Barbara⁴⁹ which alone encompass nearly 1,000 square miles of seabed.⁵⁰

That offshore drilling is now "big business"⁵¹ is evident from the following data: at present the industry has invested over \$13 billion in offshore operations;⁵² yearly investment is over \$1 billion and this figure is projected to increase an average of 18 percent annually over the coming decade;53 the offshore oil industry is expected to continue to grow and to account for at least 33 percent of total world oil production in 10 years.⁵⁴ A significant expenditure included in these investment data is the cost of rentals, royalties and bonuses paid to the Federal Government; these have amounted to \$1.6 billion thus far for the Santa Barbara concessions alone.55

Offshore drilling differs from land-based operations in several respects. First, it is more expensive: the modern heavy drilling rig costs about \$1 million and will drill three or four wells per year while the largest offshore drilling ship designed as of 1962 cost \$4 million.⁵⁶ Second, one of the reasons for the greater expense of offshore drilling is the need for new technology when operating in the ocean environment.⁵⁷ Third, whereas most shore-based drilling

52. Id. at 159.
53. Id. at 122.
54. Id. "The offshore oil industry is growing rapidly. Several thousand offshore platforms have been built in the Gulf of Mexico alone. New developments are expected off Alaska and the Atlantic seaboard. Structures for 600-foot water depths are being designed. Pipelines for oil and gas have been laid more than 70 miles offshore." Id. at 54.

55. TIME, Feb. 14, 1969, at 23.

56. DEP'T OF THE INTERIOR, supra note 39, at 8-9. "The twin-rig location and dual platforms include housing for 44 men in the drilling crews, materials for handling equipment, helicopter deck, mud system logging unit and bulk cement equipment, and represent an investment of approxi-mately \$10 million for the onsite equipment only." 46 FED. POWER COMM. ANN. REP. 158 (1966).

57. In proceeding onto the continental shelf, the petroleum industry has surmounted one obstacle after another and has succeeded in developing exploration and exploitation technologies for working at

^{49.} N.Y. Times, Feb. 9, 1969, at 2E, col. 7. 50. N.Y. Times, Feb. 2, 1969, at 1, col. 2.

^{51.} The offshore oil industry is not only a big business, but the biggest "The dockside value of the rebusiness being conducted in this area. sources taken in 1967 by U.S. firms from the shelf and water adjacent to the United States has been estimated by the Commission at \$2 billion per year. Of this amount, 50 per cent was from petroleum, 15 per cent from gas, 20 per cent from fish, and 15 per cent from other activities." COM-MISSION REPORT, supra note 12, at 158.

is conducted on privately or State owned land,⁵⁸ the seabed and subsoil are owned by the coastal State or the National Government and in the latter case operations must proceed through a unique medium: the waters of the high seas. These features of offshore drilling tend to compound the problems and conflicts⁵⁹ with which the industry has always had to contend; further, they have also created some new problems and conflicts putting new stresses on the legal system.

THE LAW OF POLLUTION II.

Having defined the industrial setting, some discussion of certain aspects of the legal system is in order before attempting an analysis of the specific legal issues raised by the Santa Barbara disaster. The fact that, there, oil escaped into the waters of the high seas differentiates this occurrence from the usual oil industry tort in at least two ways: 1) the very real fact that the pollution of water

at lower cost. Nevertheless, many companies anticipate that new oil fields in the comparatively virgin marine areas will be suf-ficiently large and productive to be competitive with oil fields on land. With continued improvements in technology such as the building of platforms to service multiple wells, offshore production costs can become increasingly competitive with onshore costs. COMMISSION REPORT, *supra* note 12, at 123.

58. "In the five public land States producing oil and gas, the Federal Government owns approximately 36 and ½ per cent of the acreage but produces only about 13 percent of the oil and gas produced in these States. The 1946 total production from these lands was approximately 62,000,000 barrels, while the production from state and privately owned lands in the same States was in excess of 380,000,000 barrels." SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, REPORT ON SUBMERGED LANDS ACT, to accompany S.J. Res. 13, S. Rep. No. 133; 83 Cong., 1st Sess. 64, 71 (1953).

S.J. Res. 13, S. Rep. No. 133; 83 Cong., 1st Sess. 64, 71 (1953).
59. Offshore petroleum development has not been without conflict. Explosives used in exploring for oil on the Grand Banks have caused considerable concern among fishermen. The probability that oil will be produced generates additional concern about pos-sible oil spills, pipelines and other hazards to fishing. Although mineral development of the continental shelf is subject to U.S. control, the fisheries beyond the 12-mile limit are an international resource causing the potential oil-versus-fish confrontation to have control, the fisheries beyond the 12-mile limit are an international resource, causing the potential oil-versus-fish confrontation to have still more serious overtones. "The density of oil drilling platforms in the Gulf of Mexico is so great that the U.S. Coast Guard and the U.S. Army Corps of Engineers, working cooperatively with the industry, have been compelled to establish fairways for ship-ping in and out of Gulf ports. Oil companies of the west coast frequently have placed wells below the surface when aesthetic values were important. Subsurface structures, however, create different kinds of navigation hazards, particularly to fishing trawls. COMMISSION REPORT, at 54-55.

sea. Exploratory drilling has begun in water depths of 1,300 feet; the feasibility of core drilling in 20,000 feet of water will be tested shortly. Within 10 years, undersea core drilling may be accom-plished by remote control, and an increasing number of production wells will be completed beneath the water's surface. Recovery of oil offshore is necessarily more expensive than on land, even though certain exploratory tasks can be accomplished at lower cost. Nevertheless

resulted from the "blow-out" distinguishes this case from the usual tort question and brings to bear the narrower, more specific law of water pollution with its specialized rules and maxims; 2) by virtue of the disaster's occurring on the seabed below the high seas, more than just local legal machinery will be involved in the resolutory process. It is because of these two factors that a discussion of the law of pollution of water and of the efforts of various levels of government to implement that law is deemed appropriate.

Like most areas of Anglo-American jurisprudence, the law of pollution of water has derived from two sources: judicial decisions and statutes.⁶⁰ The concern of the former has been to protect and preserve the proprietary rights of riparian owners against pollution by way of damages and injunction.⁶¹ "The general rule that a riparian owner on the banks of a natural stream is entitled to receive the flow of water in its natural state and unpolluted . . . applies also to tidal waters."⁶² Thus, pollution resulting in damage to oyster beds, fisheries, rowboats, or property on beaches and waterfronts can occasion tort liability based on negligence or nuisance.⁶³ In *Petition of New Jersey Barging Corp.*,⁶⁴ when an oil slick caused damage to shore property ("loss of use of the beach and

61. Id.

63. Nanda, The "Torrey Canyon" Disaster: Some Legal Aspects, 44 DENV. L.J. 400, 415 (1967). This is not to suggest that there are two theories negligence and nuisance—upon which liability for pollution can be founded. As Prosser warns, "... negligence is merely one type of conduct which may give rise to a nuisance... Today liability for nuisance may rest upon an intentional invasion of the plaintiff's interests, or a negligent one, or conduct which is abnormal and out of place in its surroundings, and so falls fairly within the principle of strict liability." W. PROSSER, THE LAW OF TORTS § 88, at 595. (Hereinafter cited as PROSSER). "Nuisance, in short, is not a separate tort in itself, subject to rules of its own. Nuisances are types of damage—the invasion ... of interests, by conduct which is tortious because it falls into the usual categories of tort liability." Id. at 598. Thus, the damage wrought by oil pollution is nuisance; liability is usually founded upon the negligence of the one responsible for the oil's escape. The issue is whether the Santa Barbara disaster was on account of negligence or if the doctrine of strict liability will apply.

64. 168 F. Supp. 925 (S.D.N.Y. 1958).

^{60.} A. WISDOM, THE LAW ON POLLUTION OF WATER 3 (1966).

^{62.} Id. at 51. "Tidal waters are those which are subject to the regular ebb and flow of the ordinary highest tides (Reese v. Miller (1882), 8 A.B.D. 626)... The thing to be looked to is the fact of absence or prevalence of fresh water, though strongly impregnated by salt; where this fresh water prevails the river is non-tidal (Horne v. Mackenzie (1939) 6 Cl. & Fin. 628)."

shore . . . loss of use of littoral or riparian rights—*i.e.*, swimming, sun-bathing, fishing, boating, picnicking, etc. . . ."),⁶⁵ an action in nuisance lay and resulted in an award of compensation "for such annoyance, inconvenience and discomfort suffered by particular claimants. . . ."⁶⁶

Clearly, the concern of decisional law has been with "making the plaintiff whole" *after* he has suffered because of a polluted water.⁶⁷ The statutory approach, on the other hand, has been geared to the prevention of pollution *before* any damage is suffered.⁶⁸ Since the earliest⁶⁹ anti-water pollution statute was enacted in England in 1388, and particularly since World War I, "attempts have been made to control and prevent pollution, through national domestic legislation in several countries, through intergovernmental action, and through voluntary industry arrangements."⁷⁰

68. Id.

69. Id. at 7.

70. C. HERTER, REPORT OF SECRETARY OF STATE ON INTERNATIONAL CONFER-ENCE ON POLLUTION OF THE SEA BY OIL, LONDON, 1954, INTERNATIONAL CON-VENTION FOR THE PREVENTION OF POLLUTION OF THE SEA BY OIL, S. EXEC. C., 86th Cong., 2d Sess. 3 (1960), Secretary Herter continued with a brief history of the efforts to prevent pollution of the seas between World War I and the London Conference of 1954.

In 1922 the U.S. Congress by joint resolution (42 STAT. 821), called attention to damage being done by the discharge of oil on the high seas, and requested the President to call an international conference for the purpose of adopting measures to prevent the pollution of the seas and coastal waters of nations by oil. An interdepartmental committee, established to draw up recommendations, issued a preliminary report in 1924, which was followed by enactment of the Oil Pollution Act, 1924 (43 STAT. 604; 33 U.S.C. 431) and by the convening by the United States on June 8, 1926, of an Intergovernmental Conference of Major Maritime Nations. Representatives of 13 governments signed the final act, but no government adopted the convention drafted at the Conference. The International Shipping Conference (composed of private shipowners' organizations of the principal maritime countries) also met in 1926 and, though it did not make definite recommendations, a number of shipowners voluntarily entered into so-called 'gentlemen's agreements' to refrain from discharging oily water within 50 miles of any coast. The problem of oil pollution was laid before the League of Nations in 1934, and in 1936 the League proposed to convene a conference to consider a draft convention which, in many respects, resembled the document drawn upon Washington in 1926. The proposed conference was not held and World War II intervened. In 1945, the United Nations undertook consideration of the problem. After consulting governments and receiving their views, the Economic and Social Council in 1953 resolved to establish a group of experts to correlate the material made available to the United Nations and to draw conclusions. This work was postponed indefinitely when the Government of the United Kingdom, after consultation with the Secretary General, decided to issue invitations to attend a diplomatic conference in London early in 1954.

^{65.} Id. at 938.

^{66.} Id. at 937.

^{67.} WISDOM, supra note 60, at 3.

A. Intergovernmental Action

For present purposes there are two international conventions worthy of note: The Convention for the Prevention of Pollution of the Sea by Oil⁷¹ and the Convention on the High Seas.⁷² The latter, which entered into force in 1962, provides in Article 24 as follows:

Every State shall draw up regulations to prevent pollution of the seas by the discharge of oil from ships or pipelines or resulting from the exploitation and exploration of the seabed and its subsoil, taking account of the existing treaty provisions on the subject.⁷³

Thus, while the Convention on the Continental Shelf affirms the coastal state's ". . . sovereign rights for the purpose of exploiting it and exploiting its natural resources,"⁷⁴ this provision seems to raise a correlative duty to exercise these rights in such a way as to prevent pollution of the seas. Further, it was thought to have created an obligation upon the United States, as well as upon the other acceding states, which would be fulfilled by ratification of the Convention for the Prevention of Pollution of the Sea by Oil.⁷⁵

The purpose of this convention was to prevent the pollution of the high seas by oil and oily wastes discharged by tankers and other ships and thereby control their harmful effects on coasts and coastal waters, on birds and other wildlife, and on fish and marine resources.⁷⁶ While recognizing the results of pollution, the Convention was not only overly narrow in its appraisal of the causes, but also did not completely fulfill the Article 24 obligations of the High Seas Convention. As the Santa Barbara disaster has so dramati-

^{71.} Convention for the Prevention of Pollution of the Sea by Oil, opened for signature, May 12, 1954, 3 U.S.T. 2989, T.I.A.S. No. 4900. This treaty was recently amended in order to deal with the intentional discharge of oil or oily waters on the high seas, prohibiting such discharges within 50 miles of a nation's coasts. N.Y. Times, May 21, 1970, at 1, col. 3. In President Nixon's message to Congress, he opined that the amendments may not go into effect for several years since they require ratification by other nations. 6 PRESIDENTIAL DOCUMENTS 660, 661 (1970).

^{72.} Convention on the High Seas, done at Geneva, April 29, 1958, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82.

^{73.} Id. Art. 24.

^{74.} Convention on the Continental Shelf, done at Geneva, April 29, 1958, 15 U.S.T. 471, T.I.A.S. No. 5578, 499 U.N.T.S. 311, Art. II, § 1.

^{75.} SENATE COMM. ON FOREIGN RELATIONS, REPORT ON THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION OF THE SEA BY OIL, S. EXEC. REP. No. 4, 87th Cong., 1st Sess. 6 (1961).

^{76.} Id. at 1.

cally shown, tankers and other ships are not the sole source of pollution. Of course, in 1954 pollution from offshore drilling was not envisioned as significant,⁷⁷ and the draftsmen's efforts reflect this. Here, then, is one example of a rapid technological advance with its attendant problems and the legal system's moving too slowly to keep pace; its performance at the domestic level is only slightly better.

B. Domestic Efforts

The Oil Pollution Act of 1924^{78} was the first piece of comprehensive legislation dealing with the problem.⁷⁹ It made it unlawful "for any person to discharge . . . from *any boat or vessel* . . . oil by any means, or manner into or upon the navigable waters of the United States⁷⁸⁰ (emphasis added). Although amended in 1966^{81} in order to provide, *inter alia*, for the cleaning up

Discussion of another treaty, the Internation Convention on Civil Liability for Oil Pollution Damage, signed at Brussels, November 29, 1969, was omitted from the text because its concern is exclusively with pollution "from the escape or discharge of oil from ships." Apparently, the lesson of Santa Barbara was lost on the draftsmen or else they determined that a treaty dealing with sources of oil pollution other than ships—viz., offshore drilling—would not be ratifiable.

78. Act of June 7, 1924, ch. 316, 43 STAT. 604, 33 U.S.C. §§ 431-437 (1964), as amended Nov. 3, 1966, PUB. L. 89-753, Title II, § 211 (a), 80 STAT. 1252.

79. Nanda, supra note 63, at 408.

80. Act of June 7, 1924, supra note 78.

81. The 1966 amendments have been much criticized for their definition of "discharge": "... any grossly negligent, or willful spilling, leaking, pumping, pouring, emitting, or emptying of oil." Id. § 211 (a) (3). "In 1924, the Oil Pollution Act was passed by Congress authorizing the fining of entities which negligently discharged oil into navigable waters. In 1966, Congress rendered the Oil Pollution Act of 1924 all but unenforceable by making 'gross negligence' the test for liability rather than simple negligence" (emphasis in original statement). C. O'Brien, Statement before the

^{77.} See, e.g., Resolution I of the Convention for the Prevention of Pollution of the Sea by Oil, *supra* note 71, where the Conference noted that, "[v]ery large quantities of persistent oils are regularly discharged into the sea by tankers as a result of the washing of their tanks and the disposal of their oil ballast water." The Conference did not mention pollution from offshore drilling. By 1962, Admiral Alfred C. Richmond, U.S.C.G., Chairman of the U.S. Delegation to the IMCO Conference for Prevention of Pollution of the Sea by Oil, London, England, March 26-April 13, 1962, was able to report: "... while not the sole source of pollution these discharges [from ships] are by far the principal one. Recent estimates indicate that world shipping is discharging waste oil into the sea at the rate of one million tons per year. During the period 1949-1965 it had been estimated that both the tonnage of petroleum moving by sea and the tonnage of the world fleet of oil kinds of ships will increase about 45 percent." CONFERENCE ON CONTRACTING GOVERNMENTS TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION OF THE SEA BY OIL, 1954, S. EXEC. D., 88th Cong., 1st Sess. 37 (1963).

of oil spills, the law still did not apply to pollution other than that caused by discharges from ships or vessels.⁸² Furthermore, the 1966 Act's definition of "navigable waters of the United States" as ". . . all portions of the sea within the territorial jurisdiction of the United States"⁸³ suggests that it would not apply to discharges into the high seas, even by ships or vessels.⁸⁴

Federal law bearing directly on the problem of pollution of the sea caused by offshore drilling is found in the Outer Continental Shelf Lands Act⁸⁵ and the Regulations⁸⁶ and orders promulgated in pursuance thereof.

The Act itself authorizes the Secretary of the Interior, in his administration of the law, to

... prescribe and amend such rules and regulations as he determines to be necessary and proper in order to provide for prevention of waste and conservation of the natural resources of the outer Continental Shelf... and ... such rules and regulations shall ap-

Sub-comm. on Air and Water Pollution of the Senate Comm. on Public Works, 91st Cong., 1st Sess. 4-5 (Feb. 24, 1969). See also WATER CONTROL NEWS, Oct. 24, 1966, at 31, § (2)3. 82. "... [T]he Oil Pollution Act does not apply to oil discharges from

82. "... [T]he Oil Pollution Act does not apply to oil discharges from shore-based facilities. This omission is critically significant. The Corps of Engineers estimates that 40 percent of all oil pollution enforcement cases in the past grew out of nonwaterborne oil discharges." Secretary of the Interior and Secretary of Transportation, A Report on Pollution of the Nation's Waters by Oil and Other Hazardous Substances, at 15 (February, 1968). What was even more "critically significant" was that the Secretaries, in pointing out the Act's weaknesses, did not recognize an additional weakness: its nonapplicability to oil discharges from offshore drilling operations. Some time after the Santa Barbara spill Congress dealt with these problems when it enacted the Water Quality Improvement Act of 1970, P.L. 91-224, 84 STAT. 91, which implements the policy of the United States, as therein declared, that "there should be no discharges of oil into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone. Section 11(b)(1). Such policy is applied to persons in charge of vessels, on shore facilities and offshore facilities.

83. Act of June 7, 1924, supra note 78, § 211(a)(4).

84. But see the Oil Pollution Act of 1961, 33 U.S.C. 1001-1015 (1964), the implementing legislation for the Convention on Prevention of Pollution of the Sea by Oil. "The 1961 Act prohibits discharges by ships of American registry of oil or oil wastes beyond the United States territorial waters in specified zones." Nanda, *supra* note 63, at 410.

85. 43 U.S.C.A. §§ 1331-1343 (1953), 67 STAT. 462.

86. Oil and Gas and Sulfur Operations in the Outer Continental Shelf, Operating Regulations, 30 C.F.R. pt. 250, and Outer Continental Shelf Mineral Deposits, Leasing Regulations, 43 C.F.R. pt. 3380. ply to all operations conducted under a lease issued or maintained under the provisions of this [Act]."87

It further provides that knowing or willful violators of these rules and regulations

for the prevention of waste, [or] the conservation of the natural resources . . . shall be deemed guilty of a misdemeanor and punishable by a fine of not more than \$2,000 or by imprisonment for not more than six months, or by both. . . .⁸⁸

The lessee, while not specifically prohibited by any term of his lease from polluting the sea,⁸⁹ does agree ". . . to carry on all operations in accordance with approved methods and practices including those provided in the operating and conservation regulations for the Outer Continental Shelf . . . "90

The Regulations, in pertinent part, provide that "[t]he lessee shall take all reasonable precautions to prevent damage or waste of any natural resource or injury to life or property or the aquatic life of the seas. . . .⁹¹ The lessee shall not pollute the water of the high seas or damage the aquatic life of the sea or allow extraneous matter to enter and damage any mineral or water-bearing formation."92

In addition to these Regulations and their inclusion by reference in the law applicable to leases granted under the Act,⁹³ the Regional Oil and Gas Supervisors for the Gulf Coast region and the Pacific Coast region have promulgated Orders which state (here quoting from the Gulf Coast Region Order): "All oil, gas, and sulphur operations shall be conducted in such a manner as to preclude the pollution of the waters of the Gulf of Mexico Immediate corrective action shall be taken in all cases where accidental pollution has occurred."94

While all of the foregoing is clearly directed at the prevention of pollution of the sea, it is nowhere specified what exactly is to be

^{87.} Outer Continental Shelf Lands Act, supra note 85, § 1334(a)(1).

 ^{88.} Id. § 1334(a) (2).
 89. PUBLIC LAND LAW REVIEW COMMISSION, 1 STUDY OF OUTER CONTINEN-TAL SHELF LANDS OF THE UNITED STATES, October, 1968 (report prepared by the Law Firm of Nossaman, Waters, Scott, Krueger & Riordan, Los Angeles, California, Robert B. Krueger, Project Director), § 4.80, at 270.

^{90.} Dep't of the Interior, Bureau of Land Management, Oil and Gas Lease of Submerged Lands, Form 3380-1 (February, 1966), 2(i).

^{91. 30} C.F.R. § 250.30.

^{92. 30} C.F.R. § 250.42.

^{93.} PUBLIC LAND LAW REVIEW COMMISSION, supra note 89, at 270.

^{94.} Gulf Coast OCS Order no. 7 (January 11, 1965). The Pacific Coast Region counterpart is nearly identical. See Public Land Law Review Com-MISSION, supra note 89, at 271, 333, n.406.

done when an event such as the Santa Barbara disaster occurs.⁹⁵ This explains in part the reason for Secretary Hickel's much ballyhooed⁹⁶ indecision when first confronted with the problem of dealing with the eruption off Santa Barbara.

Probably in an effort to quell adverse commentary, but more likely in recognition of the need to fill the obvious void in the Regulations, the Department of the Interior issued, on February 17, 1969, the following amendment to the Regulations:

(b) If the waters of high seas are polluted by the drilling or production operations of the lessee, and such pollution damages or threatens to damage aquatic life, wildlife, or public or private property, the control and removal of the pollutant and the reparation of any damage, to whomsoever occurring, proximately resulting therefrom shall be at the expense of the lessee, and on failure of the lessee to control and remove the pollutant the Supervisor, in co-

96. See e.g., N.Y. Times, Feb. 7, 1969, at 36, col. 2 (Editorial entitled: Smugness on Oil Slick).

When Secretary of the Interior Hickel flew over the slick earlier this week it was already evident that no further reliance could be placed in the brave assurances the oil companies had given the Johnson Administration a year ago. At that time the industry ridiculed the fears expressed by conservationists and persuaded the Government that there was no pollution risk.

With that history and the black record of error unfolded beneath him, the course of prudence—to say nothing of responsibility for Mr. Hickel would have been to insist on an indefinite shutdown of all drilling in the Santa Barbara Channel. Instead, Mr. Hickel's drilling moratorium lasted barely 24 hours. It is inconceivable that a review of all the complex factors involved in the original accident could have been completed in so short a time, much less provide dependable guarantees against a recurrence.

provide dependable guarantees against a recurrence. And then, in N.Y. Times, March 1, 1969, at 30, cols. 1 & 2 (Editorial entitled: HICKEL VS. THE POLLUTERS): "Secretary of the Interior Walter J. Hickel is proving a quick learner—to the country's benefit. After his initial fumbles in coping with the Santa Barbara oil pollution disaster, he emerged as a champion of the toughest possible measures to guard against future trouble of the same sort."

^{95.} But cf. § 2(i) of the Standard Lease, which provides that the Lessee must carry out at his own expense ". . . all lawful and reasonable orders of the Lessor relative to the matters in this paragraph . . . [*i.e.*, "to carry on all operations in accordance with approved methods and practices including those provided in the operating and conservation regulations for the Outer Continental Shelf"]." Thus, assuming the Secretary's stop drilling order was "lawful and reasonable" (see discussion cited in *infra* note 128), there should be no excuse for the delay in its issuance. As it turns out, the decision to halt was based on Federal regulations ". . . authorizing such action where there is 'immediate serious or irreparable damage' to the offshore mineral deposit involved." N.Y. Times, Feb. 8, 1969, at 17, col. 3. Thus, it seems that the threat of actual pollution is alone not enough to halt the drilling.

operation with other appropriate agencies of the Federal, State, and local governments, or in cooperation with the lessee, or both, shall have the right to accomplish the control and removal of the pollutant at the cost of the lessee, but such action shall not relieve the lessee of responsibility for reparation of damages as provided herein.⁹⁷

This amendment is noteworthy in two rather unrelated respects. First, as indicated in the accompanying comment, "the amendment shall become effective on publication in the Federal Register [*i.e.*, February 21, 1969]." This prospective effect raises⁹⁸ the practical objection that the new regulation may not be applicable to the very situation that prompted its issuance.⁹⁹ Second, despite its being part of a package of preventative measures,¹⁰⁰ the amendment de-

97. 34 FED. REG. 2503-04 (February 21, 1969), amend. to 30 C.F.R. 250.42. 98. This presumption of prospective effect is strengthened by the Outer Continental Shelf Lands Act's provision dealing with cancellation of a lease: "Whenever the owner of a lease fails to comply with any of the provisions of this [Act], or of the lease, or of the regulations issued under this [Act] and in force and effect on the date of the issuance of the lease . . . such lease may be forfeited and cancelled . . . [etc.]" (emphasis added). This indicates that the lesses in the Santa Barbara Channel cannot have their leases cancelled if they fail to comply with the new amendment since it was not in effect when the lease was issued. It further suggests that regulations can only have a prospective effect. But see 30 C.F.R. § 250.100 (a) which provides that, ". . the regulations in this part will supersede the provisions of any lease. . ." The presumption created by the cancellation rule, which is also contained in the lease (Form 3380-1, § 7), should be rebutted by § 250.100(a).

99. See e.g., N.Y. Times, Feb. 9, 1969 at 1, col. 1: "An underwater oil well was finally capped today [February 8] by an enormous dose of mud and cement after the oil had coated more than 30 miles of beaches and harbors with gummy black slick and caused untold harm to wildlife." [Paul DeFalco, Jr., regional director of the Federal Water Pollution Control Administration] estimated that it would take the crews about three days to clean properly the sandy beaches." *Id.* at col. 2. Thus, according to this report the clean up operation should have been well along by the February 21 date on which the amendment became effective. Of course, the lasting damage, as was done to the aquatic life and wildlife, should fall within the terms of the amended regulation.

100. On February 18, 1969, in announcing the new "regulations," Secretary Hickel stated: "Our specific goal has been to develop tough new regulations which will help prevent any future disasters such as we recently witnessed in the Santa Barbara Channel off the coast of California." Quoted in N.Y. Times, Feb. 19, 1969, at 32, col. 1. The Times went on to point out the substance of some of the other "regulations": "One new guideline provides that variances or departures from regulations covering the casings used in wells and the depth to which the casings must be placed below the ocean floor will no longer be approved in field offices. The variances must now be submitted to Geological Survey headquarters here. Another new guideline provides that all wells will be cased and cemented in a manner that will not allow oil and gas in different fluidbearing strata to mix." *Id.* For text of new "regulations" see U.S. Geological Survey, Draft, Mar. 19, 1969 (which will become OCS Order No. 10 (March -, 1969). parts from the traditional statutory approach in its concern with reparation after the damage is done. While admittedly filling the aforementioned void in the Regulations, this remedial approach. more importantly, may be indicative of a feeling in the Department of the Interior that the common law is ill-equipped to deal with this problem.

In general then, it can be said that the criticism levelled at the overall Federal role in coastal zones-that it has grown haphazardly¹⁰¹—is also true of its role in the prevention of pollution of the sea stemming from offshore drilling operations. Although the Marine Sciences, Engineering and Resources Commission would focus responsibility for coastal zone management in the adjacent States,¹⁰² their records on pollution control matters have been less than exemplary.

For two reasons the discussion of State efforts will draw exclusively upon the California experience in its statutory approach to water pollution control: 1) the Santa Barbara disaster, though originating outside of State jurisdiction,¹⁰³ has profound repercussions in areas of vital concern to California; 2) that State has been praised as having an unsurpassed program for water pollution control.104

At the highest level of generality one finds the California Water Code,¹⁰⁵ enacted in 1943 to consolidate and revise the law relating to water.¹⁰⁶ The sections dealing with water pollution¹⁰⁷ provide. inter alia, for the establishment of a State Water Pollution Control Board¹⁰⁸ and Regional Water Pollution Control Boards¹⁰⁹ to formu-

106. Id. Preamble.

^{101.} COMMISSION REPORT, supra note 12 at 56.

^{102.} Id. at 57.

^{103.} The "blow-out" occurred on the outer Continental Shelf over which the Federal Government exercises exclusive jurisdiction. Outer Continental Shelf Lands Act, supra note 85, § 1333(a) (1).

^{104. &}quot;Secretary of the Interior Stewart Udall has stated that California has an unsurpassed program for water pollution control." Regional Control of Air and Water Pollution in the San Francisco Bay Area, 55 CAL. L. REV. 702, 717 (1967). See address by Secretary Udall, dedication ceremonies of the Sunoil Filtration Plant, San Francisco, September, 1966, quoted in Statement by R. Gupta, [Member, State Water Quality Control Board, San Francisco, Nov. 17, 1966]." Id. at 717, n.145. 105. CAL. WAT. CODE (Deering 1954).

^{107.} Id. §§ 13000-13104, added by ch. 1549, [1949] CAL. STATS. § 1, 2792.

^{108.} Id. ch. 3, §§ 13010-25. For a critical analysis of the Board and

late and implement a policy for the control of water pollution. Unfortunately, the draftsmen apparently did not envision pollution arising out of offshore drilling: the definition of "pollution" is limited to ". . . impairment of the quality of the waters of the State by sewage or *industrial waste* . . . which . . . adversely affect[s] such waters for domestic, industrial, agricultural, navigational, recreational or other beneficial use"¹¹⁰ (emphasis added). Thus, while the Code is applicable to the waters of the territorial sea,¹¹¹ unless an offshore well's "blowing out" can be termed "industrial waste," it is inapplicable to occurrences like the Santa Barbara disaster.

More directly in point are those sections of the California Public Resources Code¹¹² dealing with Oil and Gas Leases on Tidal and Submerged Lands.¹¹³

First, there is a section excluding certain areas of the coastal area from oil and gas extraction.¹¹⁴ While this quite obviously would preclude pollution as well, it was probably motivated by a desire to preserve the areas for recreational and residential use. This thesis is supported by the fact that the excluded areas may be leased for gas and oil extraction if they are being drained by others drilling from adjacent lands.¹¹⁵ Further, the allowance of slant-drilling from the shore ". . . to preserve and protect the highly developed recreational and residential area"¹¹⁶ suggests motives other than pollution control.

Second, the Code prohibits (without providing penalties for violations) "[p]ollution and contamination of the ocean and tidelands and all impairments of and interference with bathing, fishing or navigation in the waters of the ocean "¹¹⁷

its role in the Santa Barbara disaster, see N.Y. Times, Feb. 9, 1969, at 77, cols. 1 & 2.

109. CAL. WAT. CODE, supra note 105, ch. 4, §§ 13040-64.

110. Id. § 13005.

111. Id. See also CAL. CONST. Art. XXI, § 1 and CAL. GOV'T CODE § 170-2 (West 1966).

112. CAL. PUB. RES. CODE (West 1956).

113. Id. §§ 6871-6878.

114. Id. § 6871.2. This section excludes the territorial belt (3 nautical miles wide) of portions of Los Angeles, Santa Barbara, and San Luis Obispo Counties from oil leasing.

115. Id. § 6872.1. One of the many ironies arising out of the situation in Santa Barbara is the fact that Federal leasing beyond Santa Barbara's sanctuary ultimately has the effect of forcing California to lease in the proscribed areas (under the authority of this section) or to allow the State's resources to be drained away by Federal lessees.

116. Id. § 6872.2.

117. Id. § 6873. More correctly, the Code requires that this prohibition, inter alia, be included as a term of the offshore lease. But see, 21 OP. ATT'Y GEN. 26 (1953). "Public Resource Code section 6873, generally Finally, mention should be made of the leasing authority's discretionary power to deny a lease if its issuance would result in "impairments or interference with the developed shore line, recreational or residential areas adjacent to the proposed leased acreage."¹¹⁸ One of the factors the Commission must consider in reaching its decision (after holding appropriate hearings) is whether the lease would "[c]reate any fire hazard or hazards, or smoke, smog or dust nuisance, or pollution of waters surrounding or adjoining said areas."¹¹⁹

While these State leasing provisions have no direct bearing on outer Continental Shelf operations,¹²⁰ they are evidence of a State policy to prevent the pollution, as well as to balance competing uses, of the coastal zone.

Other areas of California law, not limited to offshore drilling, are also relevant to the matters under consideration. The California Harbors and Navigation Code¹²¹ provides that "any person that intentionally or negligently causes or permits any oil to be deposited in the waters of this state . . . shall be liable civilly in an amount not exceeding six thousand dollars. . . ." plus the costs of clean-up and abatement of the oil deposit. The amount of the civil penalty is based upon the "amount of discharge and the likelihood of permanent injury"; it is recoverable by the governmental agency charged with clean-up and abatement.¹²² Too, the California Fish and Game Code¹²³ provides for the State's recovery of damages in a civil action "against any person who unlawfully or negligently takes or destroys any bird, mammal, fish, or amphibia" protected by state law: "It he measure of damages is the amount which will compensate for all the detriment proximately caused by the destruction of such birds, mammals, fish, or amphibia."124 These provisions of two

123. Cal. Fish & GAME Code (West 1958).

124. Id. § 2014.

requires slant drilling into tidelands, and prohibits pollution of the ocean and tidelands by drilling operations. [Its end is] . . . to keep the drilling operations on the uplands in order to prevent pollution."

^{118.} Id. § 6873.2.

^{119.} Id. § 6873.2(d).

^{120.} See supra note 103.

^{121.} CAL. HAR. & NAV. CODE (West 1955, Supp. 1968-69).

^{122.} Id. § 151. It should be noted that this section, in imposing civil penalties upon polluters, does not eliminate other means of proceeding against water polluters, People v. Union Oil Co., 268 Cal. App. 2d 566, 74 Cal. Rptr. 78 (1968).

widely differing Codes provide the means of somewhat undoing the damage created by oil pollution.

Finally, local ordinances are of some importance. Although their authority is usually preempted from the shoreline seaward by the State and Federal governments,¹²⁵ they can be of value in protecting local interests and regulating shore-based effects of offshore operations. An example is Santa Barbara County Ordinance 1927, establishing the County Department of Petroleum which regulates "drilling, production and transportation of oil, including safety, sanitation and pollution control."¹²⁶ Although this may appear to some as a further fragmentation of regulatory authority, state decision-makers find it useful to draw on local knowledge and experience since often ". . . it is necessary to reflect the interests of local governments in accommodating competitive needs."¹²⁷

The haphazard and fragmentary approach to problems arising out of the exploitation of the Continental Shelf, characteristic of the Federal Government, while reflected in State governments (in California, at any rate) is, there, not as debilitating in its effects when a disaster occurs. This is so for at least two reasons. First, greater concern with local problems lends a perspective to the State authorities' views not enjoyed by their Federal counterparts; as a result of the State's seriously considering local fears,¹²⁸ it has been better able to anticipate problems before they arise. Second, its long legislative experience in areas likely to be affected by ocean pollution problems—e.g., Harbor Pollution Control, Fish, and Game Regulation, and its comparatively long history of offshore drilling regulation¹²⁹—provides the State with some of the statutory "re-

125. D. Bickmore, Statement prepared for presentation before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works, 91st Cong., 1st Sess. (Feb. 24, 1969).

126. Id. County of Santa Barbara, Calif. Ordinance, 1927 (date of adoption not available).

127. COMMISSION REPORT, supra note 12, at 56.

122. "The States are subject to intense pressures from county and municipal levels, because coastal management directly affects local responsibilities and interests. Local knowledge frequently is necessary to reach rational management decisions at the State level, and it is necessary to reflect the interests of local governments in accommodating competitive needs." COMMISSION REPORT, *supra* note 12, at 56.

129. "Years have been spent by the States in working out legislation, rules, and regulations, and details of procedure and practices governing the geophysical work leasing methods and drilling problems involved in this new and hazardous type of oil exploration. The States have established and maintain departments, technical staffs, and experienced personnel to handle these matters and supervise these activities. In other words, the States are 'going concerns' in full and adequate operation." SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, REPORT ON SUBMERGED LANDS ACT, to accompany S.J. RES. 13, S. REP. No. 133, 83rd Cong., 1st Sess. 70 (1953). sources" necessary to deal with reparation as well as to encourage prevention.

In sum then, one wishing to proceed against a polluter is faced with a plethora of laws, regulations, orders, and ordinances all of which indicate a sensitivity to the harmfulness of pollution but none of which provides much in the way of guidelines. The common law's recognition of water pollution as a harm has been embodied in International Conventions and in Federal and State laws and regulations. Thus far, however, only the Department of the Interior Regulation of July 21, 1969 provides a general damage remedy to the private litigant injured by oil pollution. In all other cases the pursuit of a remedy, or for that matter the prevention of pollution, is left to governmental agencies enjoying considerable discretionary power. If that power is not exercised effectively, and there is some feeling that it has not been so exercised in the Santa Barbara case,¹³⁰ the bather or the fisherman or the beach front property owner who has been the victim of oil pollution must pursue his remedy by bringing a traditional nuisance action. That this approach can be exceedingly difficult to sustain as well as wholly inadequate in some cases is suggested in the sections following.

III. LAWSUITS OCCASIONED BY THE SANTA BARBARA DISASTER

Recognizing the fact that much of the law described in the preceding section is of little aid, those injured by the Santa Barbara oil slick turned to their lawyers, who instinctively thought "Sue the Bastards."¹³¹ That litigation is a "poor solution" and that the "citizens could smother in pollution before the questions are finally adjudicated"¹³² are the inescapable conclusions derived from what follows. Nonetheless, given the present state of the law, this is the only approach available to the injured parties. Also, the discussion is worthwhile as the arguments raised in the various causes of ac-

132. See Hill, supra note 130.

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^{130.} Hill, Hole in Pollution Law, N.Y. Times, June 2, 1969, at 15, cols. 1 and 2.

^{131.} This quotation is not included as an effort to be flippant; rather it is the rallying cry of a dedicated group of conservationists, the Environmental Defense Fund, as propounded by their attorney, Victor J. Yannacone. See Rogin, All He Wants to Save is the World, SPORTS ILLUSTRATED, February 3, 1969, at 24.

tion indicate the direction in which evolving tort doctrines must proceed if the legal system is to effectively resolve this new set of conflicting interests. The following discussion shall proceed seriatim, dealing with related problems as they occur in each of the three cases: California's claim against the United States, its claim against Union Oil *et al.*, and a private class action against Union Oil *et al.*

A. State of California, et al.—Claim for Damage or Injury

On February 18, 1969, the State of California, the City and County of Santa Barbara, and the City of Carpenteria submitted a Claim for Damage or Injury (Standard Form 95) to the Secretary of the Interior. In it the claimants alleged damages "to property, water, and the various types of personal property and the use thereof, and to fish and wildlife along the coast of the Counties of Santa Barbara, Ventura, and Los Angeles, State of California,"¹³³ caused by "the leakage or spillage of oil or petroleum from or near the drilling platform located on O.C.S.P.—0241, Parcel 402, Platform 'A' into the adjacent waters."¹³⁴ The *ad damnum* of the claim is \$500 million.¹⁸⁵

One basis of the claim is a violation of the claimants' Fifth Amendment rights: "It is claimed that the employees or officials of the Department of the Interior have unlawfully deprived claimants either temporarily or permanently of the use of their property without due process of law and for unlawful purposes."¹³⁰ It is also claimed that the damage was caused by the Department's negligence in permitting offshore drilling without "adequate investigation to establish reasonable standards and safeguards for such drilling,"¹³⁷ by the local Oil and Gas Supervisor's negligence in failing to inspect and supervise the drilling operations,¹³⁸ and by the conduct of an ultra-hazardous activity.¹³⁰

This unusual mixture of a negligence action with an alleged violation of the plaintiffs' constitutional rights stems from the defendant's unique status as sovereign. The Federal Tort Claims Act provides in part that the federal district courts

shall have exclusive jurisdiction of civil actions on claims against the United States . . . for injury or loss of property . . . caused by

^{133.} State of California, et al., Claim for Damages or Injury—Standard Form 95 (Government Form and attached memorandum submitted to Secretary, Department of the Interior, February 18, 1969).

^{134.} Id. ¶ 3, at 2. 135. Id. ¶ 6, at 3. 136. Id. ¶ 5, at 3. 137. Id. ¶ 6, at 3. 138. Id. at 3-4. 139. Id. at 4.

the negligent or wrongful act or omission of any employee of the Government while acting within the scope of his office or employment, under circumstances where the United States, if a private person, would be liable to the claimant in acordance with the law of the place where the act or omission occurred.¹⁴⁰

There is an exception which will be important in the Santa Barbara case: the preceding shall not apply to—

(a) Any claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the government, whether or not the discretion involved be abused.¹⁴¹

Aside from the question of negligence and its attendant problems (to be considered momentarily), this statute raises at least three obstacles which the plaintiffs must overcome if they are to succeed.

First is the question of whether the United States, if it were a private person, would be liable. It is difficult to conceive of a private person carrying on functions analogous to the United States' in Santa Barbara. The private owner of oil and gas rights who conveys a lease to an oil company is in some ways similar. The law is not clear as to whether the private lessor would be liable either for the torts of his own "negligence" in granting the lease or in failing to inspect. Summers asserts, without citing authority that "[1] andowners and their oil and gas lessees, in the exercise of their privileges to take oil and gas, have common-law and statutory duties not to drill and operate oil and gas wells in such locations and in such a manner as to constitute a public or private surface nuisance."142 The reason for the lack of cases holding the landowner liable is that invariably the oil company itself is the obvious, if not always the most desirable, defendant. There is reason to believe, however, that the United States will not be able to win on this point regardless of whether or not a private person would be liable in the same circumstances. Since the important Texas City Disaster case, which held that the failure of the Coast Guard to fight a fire was outside

^{140. 28} U.S.C. § 1346(b).

^{141. 28} U.S.C. § 2680.

^{142.} W. SUMMERS, 1 THE LAW OF OIL AND GAS § 65 (1954). It is true that the reader is referred to chapter 21 of the same treatise but that material is concerned exclusively with the Operator's Liability. See Id., vol. 4.

the Act because there was no analogous liability of private persons for such failure,¹⁴³ the courts have tended to disregard this basis of denying relief. With the ever increasing role of the Government in all aspects of life, the cases where private persons would not only be free from liability but also would never even engage in the particular activity are manifold. Thus, in a case involving a faulty lighthouse which resulted in the plaintiff's suffering damage, the argument that providing a lighthouse was a "uniquely governmental function" was rejected.¹⁴⁴ While granting offshore oil leases is surely a "uniquely governmental function," it is probably no more so than providing lighthouses or, as in another case, air traffic control.¹⁴⁵

The second problem the plaintiffs in Santa Barbara must overcome is that raised by the statute's providing that the negligent act must result in the Government's being liable in accordance with the law of the place where the act or omission occurred. The granting of leases probably occurred in Washington, D.C.; the failure to inspect occurred on the high seas. Thus, the Government's granting the lease must be a basis of liability under Washington, D.C. law and the failure to inspect must be a basis of liability under California law as it was on August 7, 1953.¹⁴⁶ Finding authority for either of these propositions will not be easy.

The third problem arising under the Federal Tort Claims Act involves the above-quoted exception: if the granting of leases, failure to inspect, etc. were in performance of a discretionary function or duty, there will be no liability. The cases have refined this rule by drawing a distinction between the "planning level" and the "operational level." For example, the decision whether to install a lighthouse is "planning" and discretionary with no liability arising for failure to do it; once it is installed, however, improper maintenance is "operational" and negligence at this level will render the Government liable.¹⁴⁷ In the Santa Barbara case, then, the decision to grant leases is probably not actionable, having been made at the planning level; failure to inspect, on the other hand, would be a basis for liability if such failure can be shown to have been negligent.

^{143.} Dalehite v. United States, 346 U.S. 15 (1953).

^{144.} Indian Towing Co. v. United States, 350 U.S. 61 (1955).

^{145.} United States v. Union Trust Co., 221 F.2d 62 (D.C. Cir. 1965), aff'd in 350 U.S. 907 (1955).

^{146.} Outer Continental Shelf Lands Act, 67 STAT. 462, 43 U.S.C. § 1333 (a) (2) (1953).

^{147.} See Indian Towing Co. v. United States, supra note 144.

As to the whole question of negligence there is some "evidence" that the Department of the Interior officials failed to exercise due care: former Secretary of the Interior Udall has said that he bore the responsibility for the decision permitting the oil drilling in the Santa Barbara Channel. "Mr. Udall said that the question of tighter regulations governing the drilling had never come up, though geological conditions in the Santa Barbara area were known to be unstable."148 Another item which may be "evidence" of negligence is the assertion that the Geological Survey allowed the lessee to "cut some corners" in drilling the fateful well.¹⁴⁹ Finally, the allegation in the claim that the Regional Oil and Gas Supervisor failed to inspect the drilling operations may be "evidence" of negligence.¹⁵⁰ Whether these items are truly evidence of negligence in a legal sense is a question only a court can decide.

A more fundamental question that also must be decided by a court is that of causation: did these acts or omissions by the Goyernment's servants, assuming arguendo that they can be proven, proximately cause the "blow-out"? Also, there is the question of foreseeability: would a prudent Government servant reasonably foresee that these acts or omissions might lead to a disaster of the magnitude of that occurring off Santa Barbara?¹⁵¹ The consideration of this problem will doubtless involve the weighing of masses of expert testimony and even if causation can be shown after all, the court may balk: it is highly unlikely that a court will render a decision implying that a Government regulatory body is liable for the acts of the regulated industry which occur when the former is lax in its surveillance of the latter. Such a holding would put an impossible burden not only on the Department of the Interior but also on the hundreds of other Government agencies charged with regulating private industrial activities.

"The Reports cover the circumstances and procedure during the drilling period and subsequent efforts to control the well during the oil leakage period from January 28 to February 7." Department of the Interior, News Release, Feb. 17, 1969. These Reports (unavailable at this writing) may serve to answer many of the questions raised herein.

^{148.} N.Y. Times, Feb. 9, 1969, at 1, col. 3. 149. N.Y. Times, Feb. 14, 1969, at 24.

^{150.} State of California, et al., supra note 133, § 6, at 3-4.

^{151.} At the same time that Secretary Hickel promulgated the new Regulation (30 C.F.R. 250.42 (b) in 34 FED. REG. 2503, Feb. 21, 1969), "the Interior Department released texts of its field reports and supporting documents relative to the 'blow-out' of Santa Barbara Channel well no. A-21.

A final point should be noted with respect to the plaintiffs' action for damages under the Federal Tort Claims Act. It will be recalled that the notion of an ultra-hazardous activity was raised in the claim. The contention that the Government should be strictly liable, with no need for a showing of negligence, was specifically rejected in the Texas City Disaster case. In that case the Supreme Court resorted to the legislative history of the Act to show that it requires a "negligent act" and that the word "wrongful" in 1346(b) "was not added to the jurisdictional grant with any overtones of the absolute liability theory."152 Since then some arguments, with support from lower courts, have been made to the effect that the Government can be absolutely liable;¹⁵³ it is doubtful, however, that there would be such a finding in the Santa Barbara case, especially in view of dollar amount of the damage claim and the fact that it was not the Government but its lessee that was engaging in an ultra-hazardous activity.

An alternative theory which the claimants obviously had in mind is one which somehow draws on the federal Bill of Rights. That is, the United States Government, in sanctioning the offshore drilling which resulted in the destruction of property belonging to the people of California, unlawfully deprived the claimants of their property without due process of law. This theory is unusual for two reasons. First, unlike the usual Fifth Amendment taking, it was not the government which did the taking; it was the oil companies.¹⁵⁴ Since the Government had put its imprimatur on the drilling, it was, in effect, a party to the taking in much the same way that judicial enforcement of a racially restrictive covenant was held to constitute "state action" as proscribed by the Fourteenth Amendment.¹⁵⁵

155. Shelly v. Kraemer, 334 U.S. 1 (1948).

^{152.} Dalehite v. United States, supra note 143, at 45.

^{153.} See, e.g., Jacoby, Absolute Liability Under the Federal Tort Claims Act, 24 FED. Bar J. 139 (1964), 25 FED. Bar J. 5 (1966). The district court in Adams v. T.V.A., 254 F. Supp. 78 (E.D. Tenn. 1966), held the defendant to strict liability for concussion damage from blasting, where it found that the "discretionary" exception did not apply.

^{154.} This point is discussed by Professor Munro in his article on aircraft noise as a "taking". The Supreme Court in United States v. Causby, 328 U.S. 256 (1946) did not arrive at ". . . a basis for determining the entity (person, corporation, airline, port authority or other governmental unit) upon which liability would be ultimately fastened." Munro, Aircraft Noise As a Taking of Property, 13 N.Y.L. FORUM 476, 483 (1967). The fact that overflight can amount to a "taking" in the constitutional sense does not make the government an insurer nor does it make private carriers agents of the government. Id. at 485-6. See Gardner v. County of Allegheny, 382 Pa. 88, 114 A.2d 491 (1955). When the public agency exercises control, however, it is liable based on an "agency in control theory." Id. See Chromster v. City of Atlanta, 99 Ga. App. 447, 108 S.E.2d 731 (1959).

Secondly, it represents a significant departure from the usual Fifth Amendment case. There, arguments generally revolve around the issues of whether the compensation was just or whether the "taking" was for a public purpose. Here, there has undoubtedly been a "taking": as the claimants point out, there are fewer fish, birds, etc. in the area than there were before. In addition to this, the very granting of the oil leases resulted in a kind of "taking." The erection of oil rigs and the mere threat of pollution lowered property values in the area and this was all done without compensation. Whether these "takings" were for a public purpose is debatable; a court would likely uphold the Government's action here, it being not "for a public purpose," but "in the public interest." This is but another example of the Government's dispensing largess and coincidentally compromising the rights of individuals.¹⁵⁶ As to the "taking" occasioned by the oil spill, there was surely no due process of law. Thus, the case lacks "due process" not because someone engaged in an "evil" or "unfair" practice, nor even in a practice which "shocks the conscience" as in the usual violation of a Bill of Rights guarantee. Rather the taking was the result of the Government's carelessness in performing an otherwise inoffensive governmental function.

For the reasons raised in the discussion of negligence, it is doubtful that a court of law is going to validiate this theory of liability. The Government is continually dispensing and taking all kinds of property and it is often done without due process of law in the sense that the persons from whom the "property" is being taken have no recourse to traditional dispute-settling machinery. The people of Santa Barbara could not have obtained a hearing to air the merits of their contention that the oil leases constituted a taking of their scenic domain. The reason for this—the argument might run—is that, while a few have lost their "property," the greater public interest has been served thereby and a hearing would be superfluous.

In sum, then, California's claims against the Department of the Interior, while probably having little chance of success, do serve to dramatize the fact that a Government agency has taken a rather

^{156.} This is a variation on a theme expounded by Prof. Reich in The New Property, 73 YALE L.J. 733 (1964).

casual approach to its duty of regulating the offshore oil industry. Interior's flurry of activity immediately following the Santa Barbara disaster demonstrates a general recognition of the need for new rules and regulations in order to keep pace with the advance of technology. Furthermore, the Fifth Amendment theories suggest that the time is nigh for a reconsideration of the Government's role with respect to this "new property": clean water, uncluttered horizons, and unfouled beaches.¹⁵⁷ It is time, too, "to recognize that 'the public interest' is all too often a reassuring platitude that covers up sharp clashes of conflicting values, and hides fundamental choices."158

B. State of California, et al. v. Union Oil Company, et al.

At about the time the Claim for Damage or Injury was filed with the Department of the Interior, the same claimants brought a class action in the California Superior Court "on behalf of themselves and all other public entities and agencies of the State of California similarly situated."159 The defendants named were Union Oil Company, operator of the Federal lease on which Platform "A" is situated, its partners in the Channel oil drilling venture-Mobil Oil Corporation, Gulf Oil Company, and Texaco, Inc.--and the drilling contractor, Peter Bawden Drilling, Inc., plus 500 unknown defendants.

The complaint poses several theories of liability; but, before any court will consider the question of liability there are at least two threshold matters which must be decided: the question of jurisdiction and the question of what law applies.

1. Jurisdiction

Usually a case such as this would be clearly within the in personam jurisdiction of the California Superior Court since it has physical power over all the parties to the action, their being residents and/or doing business in California. This case involves a complexity, however, in that the complained of activity occurred, in part at least, on the outer Continental Shelf and in the waters of the high seas, areas not necessarily within state jurisdictional boundaries. Thus, does California have subject matter jurisdiction?

^{157.} For a thoughtful discussion of this theory as it applies to noise pollution occasioned by aircraft overflights see Munro, supra note 154. 158. Reich, supra note 156, at 787.

^{159.} State of California, et al. v. Union Oil Co. et al., Complaint for Damages (No. 85494, filed in Superior Court of the State of California for the County of Santa Barbara, Feb., 1969).

The Outer Continental Shelf Lands Act¹⁶⁰ provides as follows:

The Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the outer Continental Shelf and to all artificial islands and fixed structures which may be erected thereon for the purpose of exploring for, developing, removing, and transporting resources therefrom, to the same extent as if the outer Continentel Shelf were an area of exclusive Federal jurisdiction located within a State....¹⁶¹ [Emphasis supplied.]

The italicized words raise the inference that the outer Continental Shelf is an area of exclusive jurisdiction. That Congress may rightfully vest exclusive jurisdiction in Federal courts has been long recognized.¹⁶² The general rule, however, is that although a Federal court may have jurisdiction over a particular matter, State courts continue to have jurisdiction where they have exercised it in the past unless Congress has expressly or by necessary implication vested exclusive jurisdiction in the Federal court.¹⁶³

The problem here is that the State courts have not in the past exercised jurisdiction over the outer Continental Shelf. In a sense, then, the above-quoted language suggests a situation not unlike original Federal question jurisdiction. Such jurisdiction has been held not to constitute a bar to similar jurisdiction in the State courts. For example, the Bankruptcy Act, although vesting exclusive jurisdiction of proceedings in bankruptcy in Federal District Courts, does not bar plenary suit in State courts by the bankruptcy assignee to recover a preference, even though issues of Federal Law would be raised in the State suit.¹⁶⁴

163. Plaquemines Tropical Fruit Co. v. Henderson, 170 U.S. 511 (1898). 164. Claflin v. Houseman, 93 U.S. 136 (1876).

^{160.} Outer Continental Shelf Lands Act, 67 STAT. 462, 43 U.S.C. §§ 1331-43 (1953).

^{161.} Id. 1331(a)(1).

^{162.} The Moses Taylor, 71 U.S. (4 Wall.) 411, 429 (1867). Cf., HAMILTON, FEDERALIST NO. 82; "I mean not therefore to contend that the United States in the course of legislation upon objects intrusted to their direction, may not commit the decision of causes arising upon a particular regulation to the federal courts solely, if such a measure should be deemed expedient; but I hold that the State courts will be divested of no part of their primitive jurisdiction, further than may relate to an appeal; and I am even of the opinion that in every case in which they were not expressly excluded by the further acts of the national legislature, they will of course take cognizance of the causes to which those acts may give birth."

The question remains, however, as to whether the outer Continental Shelf Lands Act contains an express grant or necessarily implies exclusive Federal jurisdiction. The Act does not contain an express grant: an express grant, as in the case of Federal enclaves, unequivocally states that "[t]he District Courts of the United States shall have original jurisdiction, exclusive of the courts of the states, of all offenses against the laws of the United States."¹⁶⁵

Thus, if there is exclusive jurisdiction it must arise by implication. Other sections of the Act and its legislative history suggest that the concern of the draftsmen was to insure that no state would make claims to the resources of the outer Continental Shelf or assert fiscal claims against activities conducted thereon.¹⁰⁶ Since the causes of action occasioned by the Santa Barbara oil slick do not impinge in any significant way upon matters of exclusive Federal concern it is likely that the State court has concurrent jurisdiction; this seems especially true in view of the fact that the major portion of the damage was suffered by the State of California or its citizens.

The purpose of this discussion is to emphasize a peculiarity of the Federal system which may have profound implications for the litigants in the Santa Barbara cases. It has been hypothesized that if an action for patent infringement is brought in a state court and then removed to the Federal court, it should be dismissed. This might be called "Hart's Hypothesis" since it was a favorite topic of discussion in the late Professor Henry M. Hart's course on Federal Courts. If the Outer Continental Shelf Lands Act vests exclusive jurisdiction in the Federal courts, then the cause of action brought by the State of California, *et al.* against Union Oil will suffer the same fate because Federal jurisdiction in removal is derivitive.

Naturally, the oil companies would like to see a similar result in the Santa Barbara cases. If Professor Hart's Hypothesis is correct, the defendants can delay indefinitely.¹⁶⁷

^{165. 18} U.S.C. § 3231.

^{166.} See 43 U.S.C. § 1333(a) (3) and 1953 U.S. CODE CONG. AND ADM. NEWS 2177.

^{167.} Another delaying tactic which the defendants have employed is provided by 28 U.S.C. § 2283 which provides that a United States court may not grant an injunction to stay proceedings in a State court except, *inter alia*, where necessary in aid of its jurisdiction. Such an injunction was applied for in order to stay proceedings against Union Oil for violation of the State Harbors and Navigation Code and the Fish and Game Code (see *supra* note 121 and 123). The basis of the injunction was that the "blowout", being a matter of exclusive federal jurisdiction, should not be dealt

The question of jurisdiction over the damage done in the waters of the high seas is another matter. First, the Convention on the Territorial Sea and the Contiguous Zone¹⁶⁸ provides that the coastal State may exercise "control" over the zone of the high seas contiguous to its territorial sea;169 the Santa Barbara spill occurred well within this zone.¹⁷⁰ "Control" is limited, however, to that amount necessary to prevent infringement of the coastal State's ". . . customs, fiscal, immigration or sanitary regulations within its territory to territorial sea."¹⁷¹ The oil spill may be construed as an infringement of the United States' sanitary regulations, but because its power to prevent is limited to infringements within the territorial sea, it seems to follow that jurisdiction can only be exerted over that portion of the infringement harming the territorial sea. This, then, would leave a polluter free to pump oil into the high seas-even within the contiguous zone-and be liable only for that fraction of the damage occurring in the territory or territorial sea of the coastal State.

This view is supported by one of the few cases dealing with the outer Continental Shelf Lands Act, *Guess v. Read*, wherein the court held that "[i]t is only for 'that portion of the subsoil and seabed of the outer Continental Shelf and Artifical Islands and fixed structure erected thereon' that the State law applies. . . . [T]his does not include the sea above the subsoil and seabed and does not include the air above the sea."¹⁷²

Since this is the only pertinent law and since President Truman chose to leave the freedom of the high seas unimpaired in his 1945 Proclamation, it appears as though there is no law applicable to that portion of the pollution occurring in the high seas and thus, no one has jurisdiction over such portion.¹⁷³

with at all in State courts. This information was obtained from a personal conversation with John W. Warnock, attorney at Schramm, Raddue and Seed, attorneys for Hall *et al.*

^{168.} Convention on the Territorial Sea and Contiguous Zone, done at Geneva, April 29, 1958, 15 U.S.T. 1606, T.I.A.S. No. 5639, 516 U.N.T.S. 205. 169. Id., art. 24, § 1.

^{170. &}quot;The contiguous zone may not extend beyond twelve miles from the baseline from which the breadth of the territorial sea is measured." Id., § 2.

^{171.} Convention on the Territorial Sea and Contiguous zone, supra note 168, 1(a).

^{172. 290} F.2d 622, 625 (5th Cir. 1961) cert. den. 368 U.S. 953 (1962). 173. PRESIDENTIAL PROC. No. 2667, Sept. 28, 1945, 59 STAT. 884 (1945).

Article 24 of the Convention on the High Seas¹⁷⁴ suggests an opposite conclusion: its requirement that States draw up regulations "to prevent pollution of the seas by the discharge of oil . . . resulting from the exploitation . . . of the seabed and its subsoil . . ." would seem of necessity to confer jurisdiction on the concerned State.

2. Theories of Liability

In their complaint, the plaintiffs allege five causes¹⁷⁵ of action: 1) because of the defendants' engaging in an ultra hazardous activity, plaintiffs suffered damages proximately caused thereby in the amount of no less than \$500 million; 2) defendants negligently carried on drilling operations and as a proximate result plaintiffs suffered damage in the amount of no less than \$500 million; 3) defendants permitted emissions of oil to escape from their well and thereby damaged, polluted, and contaminated plaintiffs' lands, waters, fish, wildlife, and personal property in the amount of no less than \$500 million; 4) defendants negligently caused the destruction of various birds, fish, mammals, mollusks, and crustaceans protected by the laws of California;¹⁷⁶ 5) contrary to the laws of California,¹⁷⁷ defendants negligently permitted oil to be deposited into the waters of the State and thereby put plaintiffs to great expense (no less than \$10 million) in cleaning up the oil so deposited.

These five causes of action can be reduced to three theories of liability. The two statutory causes (4 and 5) really involve the question of negligence; that is, if plaintiffs can prove the defendants were negligent (and assuming the destruction of wildlife and pollution of waters can be proven), liability should follow. So, these two causes should proceed under the same theory of liability as 2, negligence in drilling.

Since negligence is the usual basis of liability for tortious conduct arising out of the oil drilling business,¹⁷⁸ the plaintiffs must show

and quoted in Complaint). 177. CAL. HAR. & NAV. CODE.

178. "The escape of deleterious substances from oil wells, pipe lines, tanks and other equipment used in producing, processing, transporting, marketing and refining crude petroleum and petroleum products, due to a variety of accidents and defects in equipment and occurring at all stages of production and distribution, has resulted in damages to almost every conceivable type of real or personal property." Keeton and Jones, *Tort*

^{174.} Convention on the High Seas, done at Geneva, April 29, 1958, 13 U.S.T. 2312, T.I.A.S. No. 5200, 450 U.N.T.S. 82.

^{175.} This enumeration of causes of action is a paraphrase of the allegations contained in 36 paragraphs of the complaint. See *supra* note 159. 176. CAL. FISH. & GAME CODE § 2014 (West 1958) (erroneously cited

that the defendants departed from the conduct of a hypothetical prudent operator and that the defendants could have reasonably foreseen that such a departure might result in damage like that which did occur. The problem is that it will be exceedingly difficult to show the conduct of a prudent operator and then show how the defendants departed from this standard. Such showing will involve voluminous expert testimony of a very technical nature. The aforementioned departures from prescribed procedures will, of course, be very relevant to the negligence theory. On the whole, however, negligence is a difficult basis upon which to establish liability in this kind of technical field. Thus, the plaintiffs have also pleaded alternative bases: strict liability and a variation on trespass.¹⁷⁹

These two remaining theories of liability are similar and therefore can be discussed together. The comparatively recent development of the doctrine of strict liability for abnormally dangerous conditions is embodied in the leading case of *Rylands v. Fletcher*,¹⁸⁰ where the water in a reservoir broke through into the unused shaft of a coal mine and flooded the adjoining mine of the plaintiff. There, the court held that "the person who for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape."¹⁸¹

California has approved this principle in a case remarkably appropriate for the present discussion, *Green v. General Petroleum* $Corp.^{182}$ In that case, the defendant driller was held to be liable for damage from a "blow-out" despite an express finding of due care in the conduct of his operations.

Where one, in the conduct and maintenance of an enterprise, lawful and proper in itself, deliberately does an act under known conditions, and with knowledge that injury may result to another, pro-

181. Fletcher v. Rylands, [1866] L.R. 1 Ex. 265, 279.

182. Green v. General Petroleum Corp., 205 Cal. 328, 270 P. 952 (1928).

Liability and the Oil and Gas Industry, 35 Tex. L. Rev. 1 (1956). See id. note 1 for illustrations.

^{179.} This variation on trespass is often referred to as nuisance. See *supra* note 63.

^{180.} Fletcher v. Rylands, 3 H. & C. 774, 159 Eng. Rep. 737 (1865), rev'd in Fletcher v. Rylands, [1866] L.R. 1 Ex. 265, aff'd in Rylands v. Fletcher, [1868] L.R. 3 H.L. 330.

ceeds, and injury is done to the other as the direct and proximate consequence of the act, however carefully done, the one who does the act and causes the injury should, in all fairness, be required to compensate the other for the damage done. The instant case offers a most excellent example of an actual invasion of the property of one person through the act of another. The fact that the act resulting in the "blow-out" was lawful and not negligently done does not, in our opinion, make the covering of respondents' property with oil, sand, mud, and rocks any less an actual invasion of and a trespass upon the premises.¹⁸³

While neither Rylands v. Fletcher nor Green specifically require that the defendant's activity be ultra hazardous for him to be held strictly liable—focusing rather on the relation of the activity to its surroundings¹⁸⁴—the plaintiffs here have also included this notion of dangerous condition. There are several possible reasons for the plaintiffs' following this tack. Most American jurisdictions apply the doctrine of Rylands v. Fletcher "only to the thing out of place, the abnormally dangerous condition or activity which is not a 'natural' one where it is."¹⁸⁵ The fact that by California law, "[t]he drilling of an oil well is an ultra hazardous activity because it necessarily involves the risk of serious harm to lands, waters, fish, wildlife, and personal property of others,"¹⁸⁶ renders the inclusion of this theory of liability a prudent pleading tactic.

There may be a more subtle reason for its inclusion. The Restatement of Torts, having accepted *Rylands v. Fletcher*, has limited it to an "ultra hazardous activity."¹⁸⁷ On the one hand, a plaintiff hard put to show that the activity was ultra hazardous would prefer that the court not follow the Restatement rule; on the other hand, if he can prove "ultra hazardous activity" and if the court adopts the Restatement approach in its entirety, the plaintiff then may be able to take advantage of the retatement's non-recognition of the "act of God" defense.¹⁸⁸ That is, the Restatement puts a heavy initial burden on the plaintiff; once this burden is met, the defendant will be liable *absolutely*.

^{183.} Id. 205 Cal. 328, 333-34, 270 P. 952, 955 (1928). The court also notes that the discovery and production of oil is a legitimate business. "The present case does not arise from either the conduct of a nuisance per se, or from an inevitable calamity or act of God...." 205 Cal. at 333, 270 P. at 954.

^{184.} PROSSER, § 77, at 527.

^{185.} Id.

^{186. &}quot;On August 7, 1953, the law of the State of California held the activity of drilling an oil well to be an ultra hazardous activity which subjects the actor to liability regardless of whether the actor was negligent." State of California, *supra* note 159, at ¶ 16. 187. AMERICAN LAW INSTITUTE, RESTATEMENT OF THE LAW OF TORTS §§ 519,

^{187.} AMERICAN LAW INSTITUTE, RESTATEMENT OF THE LAW OF TORTS §§ 519, 520 (1938).

^{188.} Id. §§ 510, 522. The Tentative Draft, No. 12 at 142 cites as authority

This aspect of the doctrine of strict liability is especially important in the Santa Barbara case. Undoubtedly, the defendants will claim the "blow-out" was an act of God; if this fails, they will claim the damage to the territorial sea and shore was an act of God, since presumably "God" could have as easily blown the oil in the opposite direction, out to sea. Thus, if the Restatement approach is adopted, the "act of God" defense ought to be of no aid.¹⁸⁹

But even if the court does not adopt the Restatement approach, *Green* itself suggests that the defendants will have some difficulty sustaining an "act of God" defense. Even though the "blow-out" in the *Green* case occurred with no preliminary indications that it was imminent, and even though the well was the "wildest" ever encountered by the drillers in their experience, the court was left unimpressed.

Assuming [these contentions] to be so, the fact does not materially affect the consideration of the case, for we are not now dealing with an unforeseen event or such a happening as, amounting to an 'act of God,' serves to relieve from responsibility for injury occasioned thereby. In this case, the primary inquiry leads to but one conclusion, and that is that the construction of the well, an enterprise lawful in itself, was the direct and proximate cause of the gas blow-out.¹⁹⁰

Here, however, there is a factual difference that may be crucial: in the instant case the "blow-out" occurred in an offshore drilling operation and this is technologically different from shore-based operations. The following discussion may serve to elucidate the difference. One theory of how the disaster occurred is as follows: the shaft that was drilled to the oil pool had a metal "casing" extending down 239 feet from the seabed, the shaft remaining unsheathed below that point; oil surged up the shaft and normally would have continued up to the level of the casing where it could be controlled. Instead, the oil encountered an uncharted fault line before reaching the level of the casing and followed it, rather than the shaft, to the ocean floor.¹⁹¹ Assumedly, this same chain

189. See generally, PROSSER, § 78, at 536-7.

190. Green v. General Petroleum Corp., 205 Cal. 328, 331-32, 270 P. 952, 954 (1928).

Vredenburg v. Behan, 33 LA. ANN. 627 (1881), Baker v. Snell, [1908] 2 K.B. 825, 77 L.J.K.B. 1091 both of which would appear to be distinguishable. PROSSER, § 78, at 537, note 63. See also Nichols v. Marshland, [1875] L.R. 10 Ex. 255.

^{191.} N.Y. Times, Feb. 9, 1969, at 2E (schematic drawing).

of events could occur on land; however, on land when the oil reached the surface it would form a pool which would be somewhat confinable. In this offshore operation, though, the oil, being generally lighter than water, flowed from the ocean floor to the top of the water in an uncontrollable fashion. If then, this was, as one Government geologist is reported to have speculated, a "completely freakish" occurrence,¹⁹² then perhaps it was an "act of God" in the *Green* sense and a defense to the cause.

While these facts may serve to free the drillers from liability, the spectre of further uncontrollable and unpredictable pollution suggested by these same facts strongly point to the advisability of disallowing drilling in this area until technology can more readily insure that such a disaster will not reoccur.

3. Alternative Theories

The foregoing discussion of theories of liability is not exhaustive. For example, the common law private nuisance action was not specifically pleaded. Private nuisance involves the defendant's unreasonable use of his property in such a way as to cause substantial interference with the use and enjoyment of the plaintiff's land. This theory is generally regarded as putting heavy requirements upon plaintiffs: they must show (1) a substantial interference with the use and enjoyment of their land, (2) that the defendant's conduct was either (a) intentional and unreasonable or (b) unintentional and actionable under the rules governing liability for negligent, reckless or ultra hazardous conduct, and (3) that the defendant's conduct was the proximate cause of the interference.193 While this might all be easily established in the Santa Barbara case its inclusion would be redundant-negligence, recklessness, and ultra hazardous conduct having already been pleaded. Furthermore, nuisance is generally invoked in those cases where a continuing industrial activity causes damages to plaintiffs;¹⁹⁴ the question of reasonableness is determined by weighing the social utility of the defendant's activity and the suitability of this activity to its location against the gravity of harm to the plaintiff.¹⁹⁵ In Santa Barbara

^{192.} Id., col. 6.

^{193.} See Current Legislation, State Air Pollution Control Legislation, 9 BOSTON COLLEGE IND. & COM. L. REV. 712, 716 et seq. (1968).

^{194.} See Cyr v. Town of Brookfield, 153 Conn. 261, 216 A.2d 198 (1965); Southern Liquid Fertilizer Co. v. Chapman, 103 Ga. App. 773, 120 S.E.2d 651 (1961).

^{195.} See, e.g., Fuchs v. Curran Carbonizing & Eng'r Co., 279 S.W.2d 211, 218 (Mo. Ct. App. 1955), where the court stated that persons living in cities must submit without recourse to annoyances and discomforts incident to

the "nuisance" was an isolated event rather than one arising out of the normal conduct of an industrial enterprise. To plead nuisance in these circumstances might unnecessarily require the court to deal with the extension of a tort doctrine in a case already fraught with numerous new and unfamiliar issues.

Public nuisance might have been pleaded by the State of California *et al.* This kind of action can be brought only by a public entity and only when the activity affects the rights of the public as a group. Otherwise, the above observations on private nuisance are applicable and the public entity faces the same difficulties as does the private litigant.¹⁹⁶

Finally, under the nuisance rubric, there is statutory nuisance or nuisance per se. If there is a statute declaring an act to be a nuisance, then the plaintiffs need only show a violation of the statute to recover. There does not appear to be any statute specifically declaring pollution of the sea resulting from offshore oil drilling to be a nuisance. A statute prohibiting oil pollution, however, would seem to imply as much, because such pollution is, *inter alia*, a nuisance. This resembles the tort doctrine of negligence per se where violation of a statute designed to protect a certain class of persons give the members of that class a cause of action against the violator and his negligence is presumed.

As can be seen from the preceding discussion, the areas of overlap between nuisance, trespass and strict liability are considerable. It has been suggested that the courts are moving toward a merger of the doctrines.¹⁹⁷ In this sense, the Santa Barbara plaintiffs should not be faulted for their failure to plead the nuisance theories.

municipal life because commercial enterprises are necessary for the progress of the public at large.

^{196.} For a thoughtful discussion of the various types of nuisance see Porter, The Role of Private Nuisance Law in the Control of Air Pollution, 10 ARIZ. L. REV. 107 (1968) (hereinafter cited as Porter).

^{197.} Id. at 118. See, e.g., Martin v. Reynolds Metals Co., 221 Ore. 86, 342 P.2d 790 (1959). See also Keeton, Trespass, Nuisance and Strict Liability, 59 COLUM. L. REV. 457 (1959); Lester, Nuisance-As a "Taking" Property, 17 U. MIAMI L. REV. 537 (1963); Yerke, The Law of Nuisance in Oregon, 1 WILLAMETTE L.J. 289 (1960); Comment, A Trend Toward Coalescence of Trespass and Nuisance: Remedy For Invasion of Particulates, 1961 WASH. L. Q. 62 (1961).

One other rather interesting theory of liability remains: that premised on the antitrust laws. Two recent articles by the same authors conclude that concerted industrial reaction to pollution control efforts or measures is not violative of the antitrust laws.¹⁹⁸ The same authors duly note the seemingly different view of the Antitrust Division as evinced by its suit, United States v. Automobile Manufacturers Ass'n.,¹⁹⁹ alleging that the major automobile manufacturers agreed not to install anti-pollution devices. Such an agreement is said to constitute a "conspiracy in restraint of trade."200 Similarly, it might be argued that the damage occurred at Santa Barbara as a result of the various defendants' agreeing to seek permission to deviate from the prescribed operating regulations pertaining to offshore drilling.²⁰¹ At a higher level of generality, one economist has suggested that industry efforts to maintain the artificially high price of domestic oil through government subsidies is a direct cause of the disaster; "... oil leasing in the Santa Barbara Channel would not have taken place in the absence of the subsidy program."202

The discussion of alternative theories serves to elucidate two points. One is that while the legal system as a whole has not kept pace with technological advances and their attendant problems, the theoretical concepts for framing complaints do exist. The second point is that even though there is language available for the drafting of pleadings, at least one other obstacle remains: the reluctance of courts to extend old doctrines into new problem areas. To predict how courts will respond to these arguments is an exceedingly hazardous undertaking. "Nonetheless the potential advantages accruing to those who can overcome the difficulties involved make it an avenue of attack on localized . . . pollution problems that should not be overlooked in the shadow of ... pollution control stat-

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^{198.} Verleger and Crowley, Air Pollution, Water Pollution, Industrial Cooperation and the Antitrust Laws, 4 LAND AND WATER L. REV. 475, 485 (1969) and Pollution: Regulation and the Antitrust Laws, 2 NATURAL RE-SOURCES LAW. 131,140 (1969).

^{199.} Civil No. 69-75-JWC, C.D. Calif. noted in Verleger and Crowley, supra note 198, 4 LAND AND WATER L. Rev. at 486, n.34.

^{200. 15} U.S.C. § 1. A similar argument has been made by the plaintiff in Yannecone v. Montrose Chemical Co. et al.: DDT manufacturers are alleged to have set prices in order to prevent competition from other, less harmful, pesticides. Par. 8(e) of plaintiff's verified Complaint (October 13, 1969).

^{201.} See TIME, Feb. 14, 1969, at 24. 202. W. Mead, The System of Government Subsidies to the Oil Industry, paper presented before the Sub. Comm. on Antitrust and Monopoly of the Senate Judiciary Comm., 91st Cong., 1st Sess. (March 11, 1969), at 18.

utes."²⁰³ This assertion becomes an imperative when the statutory framework is as inadequate as its been shown to be in the Santa Barbara situation.

C. Hall et al. v. Union Oil et al-Private Class Action

Finally, mention should be made of the private class action brought against the oil companies.²⁰⁴ This is important because it is the kind of suit that will become increasingly popular when large numbers of people suffer pollution damages which are not worth prosecuting individually. In this case there are really four classes: Seacoast Marine Corporation, representing the pleasure boating suppliers, sellers and users;²⁰⁵ Dorothy Ferre, representing the users of the public beaches;²⁰⁶ three property owners;²⁰⁷ and Harrison Hall, representing the local fishermen.²⁰⁸ The theories of liability again are ultra hazardous activity²⁰⁹ and negligence.²¹⁰

This case differs from the preceding, however, in that a finding of strict liability would greatly assist the plaintiffs. These four or five private persons might find it extremely difficult to establish the oil companies' negligence in conducting a technical operation such as offshore drilling. How are these plaintiffs, who presumably know little about offshore drilling, going to show that the defendants failed to exercise the ordinary care of a reasonably prudent operator? On the other hand, strict liability may be too harsh, especially since the fault could be that of some other entity, e.g., the government inspector. Perhaps the fairest approach in these circumstances would be to apply the doctrine of res ipsa loguitur.²¹¹ The fact that the oil drilling was under the defendants' sole control. it is presumed that the operators were negligent. This presumption can be overcome by the defendants' showing that, it was in fact the fault of another, e.g., the government inspector. The advantage

205. Id., 1st-6th Causes of Action, at 1-6.

- 207. Id., Tenth-Twelfth Causes of Action, at 8-9.
 208. Id., Thirteenth-Fifteenth Causes of Action, at 9-11.
- 209. See, e.g., id., First Cause of Action, ¶ V, at 2. 210. See, e.g., id., Second Cause of Action, ¶ II, at 3.
- 211. See PROSSER, supra note 63, §§ 39-40.

^{203.} Porter, supra note 196, at 119. The omitted word is "air," but the quotation is equally applicable to oil pollution.

^{204.} Hall v. Union Oil Co. Amended Complaint for Damages (No. 69-422-cc, filed in U.S.D.C., Cent, Dist. of California, February, 1969).

^{206.} Id., Seventh-Ninth Causes of Action, at 6-8.

of this approach is that it shifts the burden of making a highly technical showing (of non-negligence) to the party having the requisite resources.

The bringing of a class action raises certain problems which the plaintiffs have undoubtedly anticipated. Perhaps the most significant is the problem of notice:²¹² all members of the class must be notified of the pending action so that they might either make an appearance or exclude themselves from the class. When a class includes hundreds of thousands of people-e.g., "residents of the coastal area of Southern California . . . who in the past and plan in the future to derive particular pleasure from the contemplation and use for sport and pleasure of the public beaches" The cost of mail notice becomes staggering, assuming a complete membership list can be established. Of course, in a disaster the magnitude of Santa Barbara's notice is less of a problem since nearly everyone is apprised of the pending lawsuits.

D. Damages

The preceding three suits amount to claims for damages aggregating over \$2.36 billion.²¹³ The concern of this section is to identify some aspects of these damages and to discuss the problem of evaluation.

By now, most are aware of the more well-publicized harm occasioned by the oil spill. By February 6, a 2-inch thick layer of crude oil had already accumulated on the Santa Barbara beaches: the harbor and wharf shops had to be closed after oil had stained the hulls of the 750 boats moored there and reached such proportions as to constitute a fire hazard.²¹⁴ By February 9, 191 dead birds had already been found while 450-500 men worked in teams of 50 men on the mile of beach in an effort to clean up the mess.²¹⁵ As late as

^{212.} FED. R. CIV. P. 23(c) (2).

^{213.} The Claim for Damages or Injury filed with Secretary of the Interior was for \$500 million; that against Union Oil Co. et al. was for \$560,006,000. The private class action was for \$1.3 billion.

^{214.} N.Y. Times, Feb. 6, 1969, at 1, cols. 2-5. 215. N.Y. Times, Feb. 9, 1969, at 77, col. 4. One commentator has sug-gested that the most dramatic effect of oil pollution is its toll of water birds. "Pollution in this case begets more pollution. The water birds, too, are links in a chain; many are scavengers, patrolling our beaches as natural sanitation squads. Without them, beaches would become inapproachable because of the stench; ship's garbage would float on the waves and clutter the harbors; foulness and disease would choke our inlets and bays." Rienow & Rienow, The Oil Around Us, N.Y. Times, June 4, 1967 (Maga-zine), at 24, 110. While this account may also be dramatic, it is worthy of consideration, especially when contrasted with the remark inaccurately

February 27, patches of oil were still washing up on Southern California beaches as far as 70 miles from the site of the "blow-out."²¹⁶ Two birds and a porpoise, all dead from the oil, were found in Venice, California;²¹⁷ and by March 14, it had been established that three dead whales found on a beach near San Francisco had died as a result of the oil.²¹⁸

Depending on one's sensitivities, the above account may or may not be moving or impressive; but, in any case, these losses seem to amount to far less than \$2 billion. But, the problem with this kind of tragedy is that most of the damage is far-reaching, longlasting, and inconspicuous.

The damage is far-reaching because of a characteristic of oil on water: it spreads fast and covers vast areas.²¹⁹ Within 10 days after the "blow-out" the resultant oil slick was reported to have covered 800 square miles.²²⁰ An off-cited British study reports that 15 tons of oil (a negligible amount by current pollutions "standards") "dropped into a calm sea can cover 8 square miles in less than a week, and that oil slicks can be traced for many hundreds of miles."221

Further, the effects of oil pollution of the sea are long-lasting. Another well-known study has shown that a Baja California beach, polluted by 2,000 tons of oil in 1957, still suffered the damaging effects after eight years.²²² A Government sponsored study of the

attributed to the President of Union Oil: "I'm amazed at the publicity for the loss of a few bird." See N.Y. Times, Feb. 1969 at 32 cols. 2-6 and (advertisement) at 31.

216. N.Y. Times, Feb. 28, 1969, at 14 col. 7. 217. L.A. Times, Feb. 27, 1969, at 26, col. 2.

218. "Dr. Robert Orr of the California Academy of Science confirms after examining three dead whales which washed up on beaches near San Francisco that the whales were killed by the Santa Barbara oil slick. Marine biologists fear that dozens more whales will die in the next few weeks as more than 8000 Pacific grey whales migrate north past Santa Barbara on their way to Arctic waters [sic]." Boston Globe, Mar. 14, 1969, at 2, col. 1.

219. Nanda, The "Torrey Canyon" Disaster: Some Legal Aspects, 44 DENVER L. J. 400, 403 (1967).

220. N.Y. Times, Feb. 6, 1969, at 1, col. 3.

221. Rienow & Rienow, supra note 215, at 24; noted in Nanda, supra note 219. at 403.

222. North, Tampico, An Experiment in Destruction, 13 SEA FRONTIERS 212 (1967), reported without citation by Clive Manwell of the Marine Torrey Canyon disaster predicted that it would take at least five years before many of the coves covered by oil fully recovered.²²⁸

Finally, most of the damage from oil pollution of the sea is inconspicuous because it works in subtle ways and on tiny organisms. The living organisms of the sea exist in an immensely complex and delicate balance. The following descriptive passage is exemplary:

Just as land plants depend on minerals in the soil for their growth, every marine plant, even the smallest, is dependent upon the nutrient salts or minerals in the sea water. Diatoms must have silica, the element of which their fragile shells are fashioned. For these and all other microplants, phosphorus is an indispensable mineral. Some of these elements are in short supply and in winter may be reduced below the minimum necessary for growth. The diatom population must tide itself over this season as best it can. It faces a stark problem of survival, with no opportunity to increase, a problem of keeping alive the spark of life by forming tough protective spores against the stringency of winter, a matter of existing in a dormant state in which no demands shall be made on an environment that already withholds all but the most meagre necessities of life. So the diatoms hold their place in the winter sea, like seeds of wheat in a field under snow and ice, the seeds from which the spring growth will come.

These, then, are the elements of the vernal blooming of the sea: the 'seeds' of the dormant plants, the fertilizing chemicals, the warmth of the spring sun.

In a sudden awakening, incredible in its swiftness, the simplest plants of the sea begin to multiply. Their increase is of astronomical proportions. The spring sea belongs at first to the diatoms and to all the other microscopic plant life of the plankton. In the fierce intensity of their growth they cover vast areas of ocean with a liv-ing blanket of their cells. Mile after mile of water may appear red or brown or green, the whole surface taking on the color of the infinitesimal grains of pigment contained in each of the plant cells.

The plants have undisputed sway in the sea for only a short time. Almost at once their own burst of multiplication is matched by a similar increase in the small animals of the plankton. And this is the spawning time of the copepod and the glassworm, the pelagic shrimp and the winged snail. Hungry swarms of these little beasts of the plankton roam throught he waters, feeding on the abundant plants and themselves falling prey to larger creatures. Now in the spring the surface waters become a vast nursery. From the hills and valleys of the continent's edge lying far below, and from the scattered schoals and banks, the eggs or young of many of the bottom animals rise to the surface of the sea. Even those which, in their maturity, will sink down to a sedentary life on the bottom, spend the first weeks of life as freely swimming hunters of the plankton. So as spring progresses new batches of larvae rise into the surface each day, the young of fishes and crabs and mussels and tub worms, mingling for a time with the regular members of the plankton.224

Biological Association in Plymouth, in 1 Environmental Science and TECHNOLOGY, 273 (1967), noted in Nanda, supra note 219, at 403. 223. N.Y. Times, Feb. 9, 1969, at 77, col. 1.

224. R. CARSON, THE SEA AROUND US, 29-30 (1951).

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When oil destroys or renders inedible the surface plankton, this process is upset; "then life chains become death chains which can destroy the sea life depending upon them. . . . "225 A University of California botanist has predicted that a drastic ecological imbalance could occur in Santa Barbara because of the oil slick, the result being that plants will prosper at the expense of animals.²²⁶ This ecological imbalance can become a problem in a profound way. In the short run, oil pollution can spoil many of the living resources of the sea that man now uses for food; already, emulsified oil has sunk to the bottom of Santa Barbara Channel killing lobsters, mussels, clams. and abalones.²²⁷ But, in the long run, the damage could be

226. TIME, Feb. 14, 1969, at 23. "The oil and chemicals used to disperse the Torrey Canyon slick are thought to have disturbed the chain of marine life by killing the plankton and other small organisms, small fish and shell fish. While attention has focused on dead birds, naturalists are most concerned about the effect on marine life. Birds can fly from the scene, but marine life is trapped."

Mr. Teague [U.S. Congressman representing the Santa Barbara area] expressed similar sentiments about the ecological effects of the oil leak, agreeing that in many ways a 'dead sea' had been created—at least for a time—off the California Coast. N.Y. Times, Feb. 9, 1969, at 77, col. 1. But see, the results of a recently

completed study:

Nearly all communities inspected were healthy and showed no adverse effects of oil. Birdlife was an outstanding exception. Birds suffered due to interference of absorbed oil with normal functions of the plumage, not as a result of toxicity. Many or-ganisms, however, did not seem to be affected by thick coatings of oil substances or tar (particularly shelled forms).

With the exception of birdlife, ecological damage by the oil spillage appeared to be light. Even if all the dead organisms observed in our surveys (including corpses obviously not attributable to destruction by oil) were considered, the Channel biota is still in a healthy, vigorous, and reasonably normal state. Various biologists who have also made observations recently in the Channel thus for appear to attract with out conclusion. far appear to agree with out conclusion.

L. JONES, C. MITCHELL, E. ANDERSON, AND W. NORTH, A PRELIMINARY EVALU-ATION OF ECOLOGICAL EFFECTS OF AN OIL SPILL IN THE SANTA BARBARA CHAN-NEL 4 and 5 (unpublished paper multilithed at W.M. Keck Engineering Laboratories, Calif. Institute of Technology; support from the Western Oil and Gas Association is acknowledged). The authors, some of whom also did the Tampico study (see supra note 222), also point out that, "... if oil seepages continue in the Santa Barbara Channel, ecological effects may become prevalent. Perhaps our observations at Rincon on March 10 are indictive of losses resulting from long term exposures. Beach cleaning efforts may thus benefit the marine life as well as improve esthetic conditions." Id. at 6.

227. TIME, Feb. 14, 1969, at 23.

^{225.} Rienow and Rienow, supra note 215, at 110.

devastating: as man turns more and more to sea resources for food and water, the lasting effects of pollution on the sea's ecology may become painfully vivid. Thus, there may be more at stake here than the naturalists' concern with maintaining the stability of ocean ecology.

The question that remains after all of this is the hardest of all: how does one put a price on the damage done by oil pollution? Even if one could evaluate the living resources which were destroyed by the oil and even if one could evaluate their highly speculative future value, how does one set a price for a clean, as opposed to an oily, beach? Or, for that matter, how does one evaluate a sunset over the blue Pacific as distinguished from a sunset over a slightly reddish-brown Pacific with the horizon rudely "decorated" with oil drilling platforms?

The answers to most of the questions raised above will be a long time coming-only after months, perhaps years, of litigation. There is, however, a lesson to be drawn from all this. Common sense suggests several conclusions: first, disasters like that at Santa Barbara should not happen; second, if they do occur, the person or persons responsible should be required to pay for the damage; third, if the Government falls down in its job and is, therefore, partly responsible, it should not "get off free"; and most importantly, such a disaster should never occur simply as a result of poor planning or inadequate supervision by some Government "bureau." In short, one is brought to what is intended to be a central thesis of this study: if man is going to exploit the resources of the Continental Shelf and if the Government, as "sovereign," is going to play a role in this exploitation, it must insure that the legal machinery is capable of resolving the disputes which will inevitably arise. This is the lesson that Santa Barbara teaches; but, because it is Santa Barbara, and not some vulgar, less enchanting spot, there is a deeper lesson that is suggested by the following question: Is the continued growth of the economy, the unimpeded and ever-increasing growth of the industrial system, in short, the final conquest and "development" of every last frontier regardless of "social cost"-is this the summun bonum of American society? Some few aspects of this question will be discussed in the following concluding section.

CONCLUSION

The preceding sections have traced the development of several branches of legal doctrine, culminating in their "collision" in Santa Barbara. While the Santa Barbara disaster alone adequately demonstrates the legal system's incapacity, or at least its clumsiness, in handling catastrophic occurrences arising out of the exploitation of the outer Continental Shelf, the oil spill raises more fundamental questions impinging on notions of life-quality in an industrial society. This analysis necessarily involves a look at the political, economic, and social aspects of the Santa Barbara disaster.

It has been said that it is now fashionable to be against pollution. Unfortunately, such has not always been the case. In years past, courts and legislatures, when confronted with the conflict between industrial progress and environmental quality, have chosen the former. As recently as 1966, Congress "emasculated" the Oil Pollution Act of 1924²²⁸ by making "grossly negligent, or willful spilling" the basis of liability for pollution.²²⁹ In 1968, the Congress failed to pass an antipollution statute.²³⁰ In 1969, however, the House of Representatives' first piece of domestic legislation was H.R. 4148, passed on April 16, by a vote of 392-1.²³¹ This bill, which became Public Law 91-224²³² on April 3, 1970, provided that offshore operators must cleanup any negligent discharges.²³³

The obvious explanation of this change in the attitude of the legislators is politics. Whereas in the past there was no political mileage to be made out of being "antipollution," it is now a popular stance for an elected office-holder to take. Even if "antipollution-ism" did enjoy wide popular support heretofore, the well-known political muscle of the oil industry, as well as that of other industrial polluters was considered to be too much to oppose. It took disasters like *Torry Canyon* and Santa Barbara before the public outcry was such as to stimulate Congressional action.²³⁴

234. "The House bill is a direct outgrowth of three oil pollution incidents in recent years: The Wreckage of the tanker Torrey Canyon off the coast of England in March, 1967, the grounding of the tanker Ocean Eagle off

^{228.} Act of June 7, 1924, ch. 316, 43 STAT. 604, 33 U.S.C. §§ 431-37 (1964), as amended Nov. 3, 1966, Pub. L. 89-753, Title II, § 211(a), 80 STAT. 1252.

^{229.} Id. See note 81, supra.

^{230.} See N.Y. Times, Feb. 4, 1969, at 78, col. 2.

^{231.} N.Y. Times, April 17, 1969, at 1, col. 3.

^{232.} Water Quality Improvement Act of 1970, Pub. L. 91-224, 84 STAT. 91. 233. Id., § 12(f) (1). By making only negligent or willful dischargers liable for pollution, the Act is weaker in effect than the new Outer Continental Shelf Operating Regulations which make lessees strictly liable. 34 FED. REG. 2503-04 (February 21, 1969), amendment to 30 C.F.R. 250.42. See discussion cited at note 97, supra.

Despite the fact that the oil industry has been subdued for awhile on this issue, H.R. 4841 points up additional problems. It is, as the saying goes "too little, too late." The Santa Barbara Channel had to be polluted before such a bill was forthcoming; and even then, it departs from the usual preventative approach of legislation and attempts to plug a presumed hole in the common law. Even absent such a bill, it is a fair assumption that ultimately the claimants in Santa Barbara or in any similar circumstances will collect on their negligence actions.²³⁵ The problem with both the bill and litigation is that they are remedial: no amount of money damages is going to restore Santa Barbara to status quo ante.

Therefore, the legislature's view must be to prevention. "Preventive measures include, among other things, a thorough overhaul of the regulations under which drillers operate, a greater participation in the kind of research that will enable oil companies to better predict geologic faults, fissures, or weak spots. Perhaps most important of all, the government must exhibit firmness in refusing waivers to drillers."²³⁶ This, of course, is merely the "nuts and bolts" of prevention. The larger question the legislature must grapple with involves its first recognizing and then balancing the various competing interests. Here, they might be framed as environmental quality versus development of a vital natural resource. Since in this case the resouce is oil, in which the government has such a pervasive interest, the economics of offshore drilling is an inescapable factor in the legislature's equation.

The United States collected \$603 million in bonuses for the Santa Barbara Channel leases alone and could expect millions more in royalities.²³⁷ Naturally, in these days of budget deficits and soaring costs, increased revenues provide a powerful impetus to the Government to lease its submerged lands. On the other side of the balance sheet, it looks as if there is little money to be made by keeping Santa Barbara clean, especially if the government escapes all

Puerto Rico in March, 1968, and the oil spill from an off-shore drilling rig in California's Santa Barbara Channel last winter." N.Y. Times, April 17, 1969, at 1, col. 3.

^{235.} The author has been informed that the Union Oil litigation has been settled with the claimants in the private class action, the measure of damages being that which would obtain had the defendants been found guilty of negligence. Personal correspondence from John W. Warnock, of Schramm, Raddue and Seed, attorneys for plaintiffs, November 7, 1969.

^{236.} Clingan, Oil Pollution, U.S. NAVAL INSTITUTE PROCEEDINGS 64, 65 (May, 1969). 237. N.Y. Times, Feb. 2, 1969, at 1, col. 3. "[L]ast year [the govern-

^{237.} N.Y. Times, Feb. 2, 1969, at 1, col. 3. "[L]ast year [the government] made \$1.6 billion in rentals, royalties and bonus payments from the Santa Barbara concession."

liability for its role in such disasters. Given the facts that the government stands to gain much by the offshore drilling program and will lose little, it is likely that the balance will tip in favor of industry. Furthermore such benefits as do derive from offshore drilling accrue to the whole country (increased general revenues, strengthened national defense posture, etc.), while any ill effects are local.

The government, however, also has the duty to try to foster the optimum allocation of society's resources. This means that the decision on whether or not to allow drilling must not be based simply on royalties, tax revenues, and the consumer's need for petroleum products; these are the *private* costs and benefits of an industrial enterprise. Optimum resource allocation occurs where marginal *social* benefits and costs are equal.²³⁸ Social costs and benefits necessarily include externalities: these are the costs (pollution being a favorite example) and benefits (*e.g.*, "spin-offs" from space technology) borne and captured by society generally. Since the government's foremost duty is to provide for the general welfare, it must also consider externalities in its regulation of industrial activity.²³⁹

Santa Barbara illustrates these points in an emphatic way. One thoughtful student of the problem has suggested that were it not for government subsidies and other regulatory favors, offshore drilling in the Santa Barbara Channel would not be economically feasible.²⁴⁰ It is argued that the social cost of oil production is \$3.42 per barrel while the social value is only \$2.10²⁴¹ The cost to society aggregates \$4 billion annually,²⁴² which is to say that the externalities of offshore drilling render it uneconomic. The company executive, in deciding whether to engage in offshore

241. Id., at 15.

^{238.} W. Mead & P. Sorensen, Externalities in Ocean Mineral Resource Development, at 10 (undated paper done at the Department of Economics, University of California, Santa Barbara).

^{239.} See, e.g., Buchanan and Stubblebine, Externality, 29 ECONOMICA (1962); Coase, The Problem of Social Cost, 3 LAW & ECON. (1960); MEASUR-ING BENEFITS OF GOVERNMENT INVESTMENTS (R. Doftman ed. 1965); and Prest and Turvey, Cost-Benefit Analysis: A. Survey, 75 ECONOMIC JOURNAL 126 (1965).

^{240.} MEAD, supra note 202, at 18.

^{242.} Id., M.A. Adelman, Efficiency in Resource Use in Crude Petroleum, 31 Southern Economic Journal 105 (1964).

drilling considers only internal costs (costs of material, labor, royalties, bonuses, etc.), weighing them against expected income; he does not consider the externalities such as costs of cleaning polluted waters or the costs to the bather who cannot use the beach because it is besmireched with crude oil. Of course, the company executive cannot be expected to include external costs in his calculations unless his firm is required to bear them.

There are at least two general ways in which the externalities of offshore oil production can be internalized: through legislation or through development of new applications of old principles of tort law.

Three approaches to legislation have been suggested: (1) legislate an absolute prohibition on the enterprise, (2) legislate controls which permit but regulate the enterprise, (3) use the taxing power to internalize externalities. The first is inappropriate since it has not been shown that offshore drilling is one of those activities, so inherently undersirable and without redeeming social benefit, that it ought not to be permitted anywhere. The third is a new and unusual approach but has a certain logical appeal: a tax equivalent to the value of the externality would be levied on the enterprise, with the company then free to behave in response to normal market forces, the tax being included as a cost of doing business. This has the advantage of shifting the onus of difficult judgements away from the regulatory body and putting it squarely on the potential polluter.²⁴³

It is the second approach, however, that is most familiar and thus is the most likely of any to be adopted. This might be formulated in the following manner: the Department of the Interior and other bureaus would base decisions on sophisticated cost-benefit analyses, with due regard for externalities, rather than on the simpler, traditional methods of setting priorities within budget constraints. There is a precedent for such an approach: "The Flood Control Act of 1936 adopted a crude and general criterion for federal funding in cases in which '. . . the benefits to whomsoever they accrue are in excess of the estimated costs . . .'"²⁴⁴ The problem, is that decisions must be made by the appropriate regulatory bodies and as such would be "planning"; under present law bad decisions would not be actionable. Of lesser importance is the fact that this approach would only apply to regulated industries. Those not dependent upon governmental largess would be free to operate with-

^{243.} Mead and Sorensen, supra note 238, at 15.

^{244.} Quoted, id., at 11.

out regard to externalities.

Further there is a major problem endemic in the entire legislative scheme: the practical problem of getting Congress to adopt such a "big picture" approach. While the oil companies have succumbed to piecemeal controls, it is indeed unlikely that *all* regulated industries are going to stand by idly while Congress, with a single stroke, either sharply increases costs or precipitately forecloses vast areas of industrial expansion.

Because of the predictable obstacles to legislation, the alternative approach-litigation-will undoubtedly become an increasingly important means of balancing the interests: environmental quality and industrial growth. The Santa Barbara cases suggest how litigators ought to proceed. The "class action" can be a useful tool in applying the old doctrines of strict liability and nuisance. It is not feasible for the individual suffering from air pollution to sue every industrial polluter in the area for the injury to his eves and lungs; but it is feasible for "all similarly situated" to bring such an action. Of course, the class action may create as many problems as it solves: how are the numbers of the class to be notified, how do the members of the huge class-e.g., the people of Los Angelesknow that they are being adequately represented, and how is the recovery to be dispensed? Because class suits are cumbersome, courts are not receptive to them unless some broader issue of public policy is envisioned. It has been persuasively argued that the "economics of externality costs provide a suitable policy focus."245 That is, only damages (or, alternative, comprehensive governmental control) will prevent "the insider, the oligopolist, the polluter, and the airline from acting in a manner that exploits weaknesses in the market system."246

While this whole discussion of externalities may seem to be more the province of economic theory than a fit subject upon which to base law suits, economists argue that since externalities impinge upon private property rights, the courts must concern themselves.²⁴⁷ The class action against unscrupulous directors, who by

^{245.} Note, The Cost-Internalization Case for Class Actions, 21 Stanford L. R. 383, 419 (1969).

^{246.} Id.

^{247.} See, e.g., Dolbear, On the Theory of Optimum Externality, 57 Am. Econ. Rev. 90 n.3 (1967).

virtue of their positions profit at the expense of shareholders, does not differ conceptually from the class action against corporations which profit at the expense of those citizens bearing the external costs of production. Since there is a wrong, the law must provide a remedy.

The problems with litigation should by now be obvious: the possibility for endless delays, the complexity of the issues, and the fact that litigation is remedial. This last problem deserves special comment, especially in light of the preceding discussion of the "class action." The theory underlying that discussion is that externalities can be internalized through litigation; this can only happen, however, after there have been enough successful suits against polluters to persuade company executives of the prudence of considering external costs in their decision-making. Initially class suits will internalize external costs in a post facto manner: the company must bear the cost of pollution but the pollution will have already occurred. As has been seen, what is needed is a system of restraints which prevent pollution problems ever arising. This will occur when company executives know for certain that the costs of pollution arising from every project will fall directly on the firm. Then, it can be assumed, either the activity will be foregone or the company will go to great lengths to insure that externalities are minimized in the same manner that it strives to minimize internal costs.²⁴⁸

In sum, then, two approaches to internalising the costs of pollution have been suggested. Whether either or both will come into prominence is not clear; it is clear, however, that more than niceties of legal and economic theory are at stake. Essentially the problem reduces to a question of what kind of world people want to inhabit in the 20th and 21st centuries. All are aware of the continuing uglification of the environment and the efforts of a few to halt this process. At present the law does not protect aesthetic values unless some other "real" value is also threatened.²⁴⁹ "[A]esthetic achievement is beyond the reach of the industrial system and, in substantial measure in conflict with it."²⁵⁰ Moreover, it has been

^{248.} See N.Y. Times, April 10, 1969, at 1, col. 7, where it is reported that several oil companies are suing the Federal Government because the new liability provision (see discussion cited at *supra* note 91) renders exploitation of the Santa Barbara Channel oil field "economically and practically impossible."

^{249.} See Clyde, Legal Problems Imposed by Requirements of Restoration and Beautification of Mining Properties, 13 Rocky MTN. MIN. L. INST. 187, at 219-21 (1967).

^{250.} J. GALBRAITH, THE NEW INDUSTRIAL STATE at 347 (1967). It is inter-

asserted that as the year 2000 approaches the danger of irreversible harm for the planet and mankind is ever increasing; this danger is traceable to four interconnected threads which are cumulative in their effects: wars of mass destruction, overpopulation, pollution, and the depletion of resources.²⁵¹ These problems seem to be far beyond the pale of the present legal system. Indeed, it has been suggested that only the state can protect aesthetic priorities.²⁵²

Yet even in the face of these lofty goals there is a role for lawyers and the legal system. The old doctrines of strict liability and nuisance through the vehicle of the class action provide the tools whereby external costs can be internalized.

Admittedly, this alone is not going to stop the rape of the environment, but it is a step in the right direction. Further, as has been maintained throughout, the legal system is at best clumsy in dealing with problems such as those occurring at Santa Barbara. It is for this reason that the nation's best legal minds must enter the fray. It is often said that "Wall Street" has to become involved with the problems of the indigent and the disadvantaged.²⁵³ Even more importantly, "Wall Street" lawyers and their professional

"... for the first time since his creation man will be faced with his... permanent problem—how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him to live wisely and agree-ably and well."

John Maynard Keynes Essays in Persuasion "We should not fall prey to the beautification extremists who

Fred L. Hartley

President of the Union Oil Company Apparently the observation that Fred Hartley is "accident prone" was true long before his recent misfortunes. MacDonald, Life with the Blob, 30 SPORTS ILLUSTRATED 50, 57, April 21, 1969.

have no sense of economic reality."

251. N.Y. Times, April 7, 1969, at 10, col. 1 (report on the work of Prof. Richard A. Falk of Princeton University, who is directing research on a project devoted to world order in the 1990's).

252. J. GALBRAITH, supra note 250, at 350. "There are many people who would support the statement by Vice Admiral H.G. Rickover of the United States Navy, that the government has as much duty to protect the land, the air, the water, the natural environment of man against such (technological) damage as it has to protect the country against foreign enemies and the individual against criminals. . . ." Clyde, supra note 249 at 230-31. 253. See e.g., Ardent Courtships, TIME, April 18, 1969, at 77.

esting to note that Galbraith begins his chapter, The Further Dimensions, by contrasting two quotations.

counterparts throughout the country, must involve themselves in the problems of environmental quality. They, like every one else, must live on this planet. Is it not in their interest, then to devote some of their talents to rendering the life-experience more than a merely bearable one?