

# CONSIDERATION OF ANTICIPATORY USES IN DECISIONS ON COASTAL DEVELOPMENT

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Between 1849 and 1965, San Francisco Bay shrank from 700 square miles to its present 400 square miles before a halt to piecemeal filling stopped its irreversible destruction.<sup>1</sup> This loss should have been foreseeable. When decision makers work on an *ad hoc* basis, it is logical that they would look no further than the proposal at hand. Any objections considered were solely from those parties already using the Bay.

In Florida, a series of decisions taking fresh waters away from the Everglades National Park now threatens to destroy entirely the ecology of the Everglades.<sup>2</sup> The existence of this threat illustrates why coastal decisions must anticipate conflicting uses, not simply wait for them to arise. First, the applications to divert waters heading for the Everglades for large agricultural and industrial projects were considered one by one without weighing their future impact on the park itself. Second, the objecting users of the fresh water have no interest in protecting future shrimpers using the Gulf of Mexico; yet the shrimp cycle off Florida begins and ends with a trip to reproduce in the special salinity of the Everglades. Third, there will be no time for corrective action after the decisions are made. Fortunately, the fresh water diverted for adding crops and products has been matched by three full years of rainfall. However, when the next dry year comes to the Everglades the damage to its unique swamp ecology will be the direct result of past failures to build anticipatory uses into decisions in that area.

This article's concentration on these neglected future uses does not mean that they must invariably be given priority over those already existing. Indeed, there are often sound reasons after all considerations are weighed why existing users should be preferred over potential ones.

Suppose, for instance, a man builds a seafood restaurant on

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1. N.Y. Times, Mar. 23, 1969, at 79, col. 3.

2. See N.Y. Times, Mar. 16, 1969, at 37, col. 1.

a pier overlooking a bay with the permission of the town council, the proper state officials, and the federal government's District Engineer. The restaurant owner's belief that the law will protect his culinary investment often coincides with general principles of equity. In his terms, the equitable principle involved would run, in effect, like this:

I have made repeated use of the place for this purpose. I did so with the full sanction of community acquiescence, and even support. So I have a firm expectation that this community will enable me to continue the use I make of it.

This statement crystalizes our legal notion that a just society ought to aim, as one of its goals, at fulfillment of reasonable expectations. Thus, it is not surprising to find that not only are priorities often given in resource development to existing users, like our seafood *cuisinier*, but also that these users can rely in court on the principle that such expectations will be honored by coastal officials.<sup>3</sup>

This is indeed the source of the major dilemma in framing rules for consideration of anticipatory uses in seashore development. Existing users have "vested" expectations; prospective users have at best hopeful ones. How, then, can future uses be accommodated when coastal decisions are made?

A simple solution would be to establish an inflexible rule that, if any conflicts arise, present activities must prevail. The fallacy here lies in the fact that protecting the users' expectancies is but one aim of a just system; allowing room for satisfaction of new social or economic needs is also an aim which the same system is "expected" to serve. In short, the law is also expected to take future uses into account.

Finally, while this article urges that bolder steps be taken to make consideration of anticipatory uses routine, the concept itself is far from new. For instance, some state laws, such as Massachusetts' Wetlands Law and Rhode Island's Intertidal Salt

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3. For court control over arbitrary and capricious action of federal officials, see *Tatum v. Blackstock*, 319 F.2d 397, 401 (5th Cir. 1963) (by implication), discussed in Browning, *Some Aspects of State and Federal Jurisdiction in the Marine Environment*, THE LAW OF THE SEA INTERNATIONAL RULES AND ORGANIZATION FOR THE SEA 89, 134-35 (L. Alexander ed. 1969); for federal power to make permits revocable, see *Beach Jockey Club v. Dern*, 83 F.2d 715 (5th Cir. 1936) *cert. denied* 299 U.S. 556, *reaffirmed* in 86 F.2d 135 (5th Cir. 1936), and *Opinion*, 34 OP. ATT'Y GEN. 410 (1936).

Marsh Law,<sup>4</sup> already have halted the indiscriminate filling of tidal marshes. Thus, in a presently unused area, future recreational and commercial fishing activities dependent on a marsh ecology can be preserved.

If other resources are to receive the same protection, we must 1) analyze why our present procedures have failed in the past, and 2) provide devices to make routine what has hitherto been crisis-born.

#### I. DEFECTS IN THE PRESENT PROCESS FOR MAKING DECISIONS ON WORKS IN COASTAL WATERS

Each stage of the normal process followed today actually is geared to rule out any consideration of possible future activities in the same location.

At the *pre-application stage*, this failure is evidenced by the brevity of regulations on federal, state and municipal levels. For example, the only guideline existing outside the geological and geophysical areas for applicants proposing to drill for oil or gas over three miles offshore is the warning that:

the Supervisor is authorized to act upon the . . . applications . . . to the end that all operations shall conform to sound conservation practice and shall be conducted in such manner as to protect the natural resources of the outer Continental Shelf and result in their maximum recovery.<sup>5</sup>

At the *application stage*, this failure to require the applicant to provide data relevant to future use planning is even more pronounced. A typical state building application would demand plans showing the works proposed and their location vis-a-vis other properties. Additionally, proof of shore ownership plus town council or zoning district permission may be necessary. Before permission is granted, the focus is on narrowing the considerations to the physical structure, its site, and the interests of those entitled to be heard.

Nor does the fact that an application is required to be submitted to the Army Corps of Engineers<sup>6</sup> for work in

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4. See generally, M. S. Heath, Jr., STATE PROGRAMS FOR ESTUARINE AREA CONSERVATION (1968).

5. 30 C.F.R. 250.11.

6. See 33 U.S.C. § 403 (1899) and 43 U.S.C. § 1333(f) (1953). The cumulative

navigable waters ensure that investigations of future impact will be made. For instance, if a chemical factory on the banks of a narrow inlet wants to use the surface just above the water for suspended gas storage racks, a typical application required by the District Engineer will also require depth soundings, tidal range between mean high water and mean low water, a profile of the bottom—if the gas tanks are to be supported on piles, and the direction of ebb and flood tides.<sup>7</sup> The key studies which are not included are those concerned with the impact on present uses of reducing the width of navigable waters, such as canoe and punt excursions, and on forecastable future ones, such as air-cushion pleasure craft, swamplife trips for biology classes, or even waterborne flatbarge transport between local shoreline enterprises.

If the tendency exists to center on data for purely physical decisions, it is not because the Corps of Engineers does not know how to utilize information for protecting future uses. For example, when a harborwork will change the coastal sea's baseline as described in the Convention on the Territorial Sea and the Contiguous Zone's rules,<sup>8</sup> the Corps forewarns applicants that it will confer with the Attorney General.<sup>9</sup> Thus, the federal prospective interest in outer continental shelf lands is invariably taken into account. Again, in dredging cases, pollution evaluations are standard in every large-scale project.<sup>10</sup>

Why, then, are state and federal applications not routinely cognizant of future uses as well as present ones? There are at least three factors involved: the application, the staff on hand, and the costs of studies.

The principal problem, in the absence of any overall planning or zoning, is that the basic working paper remains the application for a permit. This is normally a request which requires consideration of but a single proposed use. As a result,

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effect of town, state and federal requirements, in the absence of conflict or express congressional intent to occupy the field, has been laid down in *Cummings v. Chicago*, 188 U.S. 410, 428 (1903) and *North Shore Boom & Driving Co. v. Nicomen Boom Co.*, 212 U.S. 406 (1909).

7. See CORPS OF ENGINEERS, PERMITS FOR WORK IN NAVIGABLE WATERS at 8-11, 16 (1968).

8. U.N. Doc. A/Conf. 13/L.52, T.I.A.S. 5639.

9. CORPS OF ENGINEERS, *supra* note 7, at 3.

10. *Id.* at 4.

the "evaluation" begins by taking into account what is to be done, rather than what ought to be done. For example, under state regulations, a proposal for a dam across a non-navigable tributary may not even require any study of uses of that river, such as fish seeking a place to spawn. Yet, in order to determine whether a fish ladder should be required as a condition for granting permission to build a dam, the study should include consideration of both the present and predictable changes in fish habits. Therefore, the solution is to spell out in detail the information which should be appropriately submitted by applicants for each class of work proposed.

Another source of difficulty is that the staff time and expertise given to policy questions in advance of an application is at best minimal and often lacking. This occurs, for instance, whenever there is a lack of zoning in the marine environment. It is not enough to say this may be due to a lack of jurisdiction under the law, for inadequate laws can be changed. Nor is it sufficient to point out that town councils are frequently ill-equipped to zone for rapidly-emerging coastal uses.

A final source of trouble in the application-confined process is that it shifts the costs of forward-looking studies to undermanned public agencies. There is a dilemma here between requiring costly investigations for applications by prospective users, and imposing fees so minimal that protection of anticipatory uses is dependent upon staffs lacking sufficient expertise and funds. This dilemma is readily resolved: first, place in the regulations a burden upon the applicant to submit alternative proposals and future impact studies; next, provide a right to petition for relief if the applicant can demonstrate that this investigatory work is (a) beyond his means, or (b) disproportionate to the capital to be invested or to the profit to be derived. This is ordinarily done in civil court practice when investigative discovery or record production is involved. A similar method is customary when utilities seeking permission for a nuclear plant are asked to make preliminary and continuing studies of the ecological impact of thermal, nitrogenous and radioactive pollutants.<sup>11</sup>

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11. Address by Dr. Nelson Marshall at Kingston, Rhode Island, March 26, 1969. Compare the more limited concerns studied in connection with the early California and New York nuclear power proposals, discussed in *N.Y. Times*, July 17, 1963, at 1, col. 3; at 17, col. 1.

To the extent that planning and studies of anticipatory uses must still be shifted to governmental agencies, there are three possible solutions to the dilemma. First, as Rhode Island has done exceptionally well, men with diverse expertise in the many state departments involved in coastal problems can be brought together into a single department, such as a Department of Natural Resources. The benefit of being brought physically together is incalculable; the theoretical "coordinations" on paper become actual down-the-corridor or up-the-stairs consultations on almost every case; ideally, planning groups can work simultaneously with approving and protective groups.

Second, state capacities for coastal zone management can be increased through federal grants-in-aid. This has been proposed on a fifty-fifty basis by the President's Commission on Marine Science, Engineering and Resources.<sup>12</sup>

Third, where appropriate, the backup work can be shifted to better-equipped regional or federal laboratories. Again, the President's Commission had such studies in mind when it proposed the creation of Coastal Zone Laboratories and the strengthening of federal laboratories in general.<sup>13</sup> An example of such a shift already taking place is the two-year Columbia River thermal effects study for Oregon and Washington begun by the federal government in 1968.<sup>14</sup>

At the state review stage, as we have seen, coastal decisions are presently placed with agencies which are unprepared and understaffed to weigh more than the imminent consequences. The result is, almost invariably, that the long-range uses are ignored while a dialogue about conflicting present uses becomes the pattern of decision. For example, suppose an oil company finds a harbor where the town council has approved construction of a refinery. The state agency circulates the application among pollution, wildlife and health divisions as well as adjacent property owners and private conservation groups. If, by chance, every protest or expression of doubt is accommodated, state

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12. OUR NATION AND THE SEA, A PLAN FOR NATIONAL ACTION, REPORT OF THE COMMISSION ON MARINE SCIENCE, ENGINEERING AND RESOURCES 57 (1969) [hereinafter cited as *OUR NATION AND THE SEA*].

13. *Id.* at 27-29.

14. Another recent example is in the Federal Aviation Agency's plans to survey economic and operational aspects of offshore airports. *N.Y. Times*, Dec. 2, 1968, at 94, col. 5.

officials tend to grant permission without further investigation. It is important to remember insofar as protection of anticipatory uses is concerned that for schemes less grandiose than refineries and hurricane barriers, this pattern of decision without hearings or special investigations is quite common.

If there are protests, a hearing is typically held to permit public "inputs" to come before the decision makers. What is not generally recognized is that the institution of a public hearing usually narrows—rather than broadens—the anticipatory uses to be considered. For example, in the absence of an authoritative Sierra Club study, the testimony in support of aesthetic aspects is limited to vague exhortations; it is not based on the quantified economic arguments upon which the proposer relies. Spokesmen for conservation are likely to assert that "once more our shorelines are being eroded for commercial interests", rather than to produce the investigatory work establishing recreation-source revenues, professional or business migrations dependent on natural features, or local fishery dislocations and their impact.<sup>15</sup>

There is no reason why hearings cannot become less adversary in nature; they could easily be turned into presentations, by both governmental and applying parties, of new studies on the future impacts and anticipatory uses involved. In the past such studies have been made at federal insistence where widescale modifications for hurricane or tidal barriers were proposed.<sup>16</sup> There is also no reason why state officials cannot increase the protective role of their power to require modifications. Where a present use can be tailored so as to permit possible anticipatory options, officials should become aware of these possibilities and the means for accommodating them. Finally, in cases where no objection pointedly raises the impact on future uses, there is no reason why the written decision itself cannot raise and develop this issue. Some may argue that such a practice will lead to more unreasonable decisions. But, existing judicial controls over arbitrariness<sup>17</sup> will

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15. *Cf.*, the statistical analyses of a whole state's dependence on coastal recreation in N. RORHOLM, *ECONOMIC IMPACT OF NARRAGANSETT BAY* (1963).

16. As in the mathematical studies on impact upon fish migrations in the West Barrier proposal for Narragansett Bay and for other barriers proposed by the Corps of Engineers. Addresses of Dr. Saul Saila and Dr. A. Sastry of Kingston, Rhode Island, March 3, 1969.

17. *Cf.*, *Tatum v. Blackstock*, 319 F.2d 397 (5th Cir. 1963). *See also*, review of the

constitute a check upon an unwarranted refusal to allow a coastal work where the stated grounds are some far-fetched hypothetical use.

At the *federal approving stage*, where the Corps of Engineers coordinates projects with federal laboratories, a schizophrenic pattern of decisions has emerged. On the one hand, if the proposed project is large, and includes federal participation, such as a tidal barrier, studies of ecological and physical impact on expanded uses have become routine. However, if the proposed project is small, the District Engineer relies upon the state official's interest in protecting future uses.<sup>18</sup>

In sum, at every stage it is apparent that, with few exceptions, present procedures generally disregard anticipatory uses unless specifically raised by interested parties.

## II. EXISTING DEVICES TO INTRODUCE ANTICIPATORY USES INTO DECISIONS

Some of the techniques presently available to ensure that future activities are not ignored in planning contemporary uses are:

1. **BENCHMARKS**—Often, future uses have been compromised because of a lack of data with respect to changes in the coastal waters. The San Francisco Bay fill-in is just such an example. Had the original 1848 borders been marked, and changes periodically reviewed from the original benchmarks, projections of future loss of bay space as a water resource would have been possible.

Similar benchmarks are needed in order to note whether other foreseeable or unfolding possibilities might be relevant. For

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substantiality of evidence supporting the coastal administrator's decisions in *State of Washington v. Federal Power Comm'n*, 207 F.2d 391 (9th Cir. 1953) *cert denied*, 347 U.S. 936.

18. CORPS OF ENGINEERS, *supra* note 7, at 3 states, for instance:

For minor structures and work in unimproved waterways or in unimproved waterways . . . well removed from the fairways used by navigation, authorization may be a letter of permission. No drawings are required to be submitted, nor will any public notice be issued in such cases. This procedure may be utilized when, in the opinion of the District Engineer concerned, there could be no opposition and authorization would unquestionably be given. If State law or local ordinance requires approval of the structures or work, a copy of such approval will be submitted with the application.



instance, a decision to dredge a channel in one place rather than in some alternative location requires detailed knowledge not only of the ocean bottom but also of sand movements and the effects of subsurface currents. Dredging usually takes place in shallow areas. Yet this is precisely where certain future uses may be most appropriate. For example, if communities resent the noise "pollution" of a metropolitan airport, a sensible location for a new one may be where runway approaches are charted over water instead of land. An extensive sand bar in the North Sea may prove to be the solution to London's air traffic problem.<sup>19</sup> To know where analogous sites might create new options for megalopolitan Americans requires greater oceanographic data than most communities now possess.<sup>20</sup>

The President's Commission on Marine Science, Engineering and Resources has made important recommendations which, if implemented, will add to our coastal benchmarks. These include:

- 1) the setting up of University-National Laboratories and Coastal Zone Laboratories;
- 2) federal aid for State Coastal Zone Authorities;
- 3) identification of ecological investigation areas;
- 4) new instruments for monitoring coastal phenomena; and
- 5) participation by a National Oceanic and Atmospheric Agency in coastal surveys, fundamental oceans environment research, and accelerated nautical charting.<sup>21</sup>

Having these benchmarks will only be one half of the battle. If the issuance of coastal permits are not to eliminate prime coastal reef or harbor enlargement sites, decision-makers must consider benchmark data. One method of acquiring this information would be to require dredging projects to provide underwater photos of the ocean bottom<sup>22</sup> and alternative routes for dredging channels, accompanied by cost estimates.

## 2. INVENTORIES—The follow-up to the accumulation of raw

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19. Britain is even considering platforms on the Continental Shelf and seabed to increase air safety over the seas. *The Times* (London), July 15, 1966, at 11, col. 4; *c.f.*, Bureau of Reclamation studies on transport of fresh water from northern to southern California by undersea aqueducts. *N.Y. Times*, Feb. 11, 1969, at 3, col. 5.

20. The Federal Aviation Agency is undertaking general feasibility studies of such airports before the benchmarks are in. *See N.Y. Times*, Dec. 2, 1968, at 94, col. 5.

21. *OUR NATION AND THE SEA*, *supra* note 12, at 27-29, 57-59, 63-65, 68.

22. For the expected usefulness of existing underwater cameras, *see N.Y. Times*, Sept. 16, 1968, at 7, col. 1.

23. *Oceanology Int'l*, Nov.-Dec. 1968, at 18.

geophysical facts is the outlining on maps of all possible sites for known and foreseeable future uses. In a sense this means a double inventory process: one for uses, one for locations.

a. *The example of beach-creation:* Since competition for sand is just beginning in many communities where sand pits on land are being depleted, there is a significant threat to the future use of coastal sands. Thus decisions on permits to take sand for construction from offshore areas can be expected to increase. A town south of San Diego, for example, which relies upon the receipt of beach sands that wash down the California coast may grant a permit for offshore dredging of construction sand without harm, while at a similar location farther north, large-scale dredging of sand close to shore might subvert a local community's option of constructing a beach system of its own from these deposits. Since the technologies for this kind of innovation exist, inventories of potential sites can be useful to the permit-granting process.

b. *The example of underwater recreation:* Unquestionably there will be increased competition for the use of coastal waters between existing users such as draggersmen, rod-and-reel fishermen, speedboat owners and scuba divers. Most present decisions include some accommodation for those interests now in existence. Inventory devices may help locate places which a community would rather protect, like unique scuba diving conditions or other submarine adventure trails. California has already initiated an Underwater Parks Advisory Board, one of whose first jobs was to begin surveys of regions off the California coast. However, without the inventory, that community might allow the same unique subsea to be used as a dump for silt from a nearby channel.

c. *The example of tidal power:* Since November of 1966, tides have been providing France with electricity for turbines set in the Rance Estuary in Brittany.<sup>24</sup> The Soviet Union bought the French turbine and started its own power station using the tides of Kislaya Bay in the Arctic.<sup>25</sup> Tidal power has been proposed for New York, using the Hudson River's ebb and flow, and for Miami.<sup>26</sup> If the most favorable sites for generators using tidal

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24. N.Y. Times, Nov. 27, 1966 at 1, col. 3; at 14, col. 1.

25. N.Y. Times, Dec. 30, 1968, at 6, col. 4.

26. N.Y. Times, April 4, 1967, at 21, col. 4.

energy are to be preserved, rather than allocated to some less valuable use, inventorying of those sites must be accomplished early in the coastal development cycle.

The inventorying device works equally well for a host of other uses and locations, from sites for container unloading platforms far offshore to municipal sites for vertical take-off and landing strips in the densest part of an estuary.<sup>27</sup> The key problem here is not in demonstrating the usefulness of the inventorying device, but in allocating funds for surveying and future use inventories while present uses are still being investigated.

3. PROHIBITIONS—Once a suggested use is acknowledged as detrimental to a preferred future use preserving the anticipatory use may be accomplished by erecting barriers via executive orders, statutes, or constitutional provisions. Perhaps the most well-known employment of executive powers to bar one activity which threatens future enjoyment of others is the recent halt ordered to drilling in the Santa Barbara Channel off California.<sup>28</sup> The legal problem when executive prohibitions are concerned, except where an obvious and immediate danger exists, lies in the reluctance of governmental agencies to act in the absence of some specific legislative directive to do so. The weighing of prospective against present uses is a social judgment; coastal engineers and administrators tend to think of such social judgments as a bit beyond their expertise.

Legislative prohibitions, on the other hand, do not share this defect. For example, a "wetlands" statute, such as that in California, may call a halt to indiscriminate filling of salt marshes in some areas. The real problem with the legislative bar is its inflexibility. Here, the law prefers a strict prohibition as opposed to the existence of discretion to preserve the marshes. Perhaps where the destruction of estuaries is involved, this may indeed to the best way of "depoliticizing" the refusal of

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27. For excellent examples of inventories on one bay for: hurricane barrier sites, sewer outfalls, polluted areas, industrial and commercial zones, salt marshes, public lands, shellfisheries, bottomlands, and navigable areas, see L. M. ALEXANDER, *NARRAGANSETT BAY: A MARINE USE PROFILE* (1966).

28. The ability of the executive to bar more distant disasters is implied in the Department of the Interior's proposed extended ecological preserve in the earthquake-prone parts of the Santa Barbara Channel close to shore. *N.Y. Times*, March 12, 1969, at 1, col. 5.

permission to fill them. In other cases, however, the enacted social policy may be too inflexible to meet special needs.

4. **POLICY HURDLES**—To avoid the rigidity of statutory enactments, Maine's law on filling salt marshes has created a rule of policy against such future-harming activities, but then leaves the official free to make exceptions. This technique has the administrative effect of shifting the burdens to the applicant's lawyer; he must show that the particular social utility outweighs the public interest in preserving marsh ecologies. This retains flexibility; it also may add leverage to the official's ability to require modifications to protect as many future activities as possible.

At the same time, this is its Achilles' Heel, for it is only as good as the official and the ethos in which he makes decisions. In a traditionally permissive office it may be easier to grant an application than to deny one. The result: the administrator reverses *de facto* the very shifting of burdens which the legislators intended. Likewise, in an office traditionally responsive to political interests, the policy hurdle becomes a tool for unequal denial-allowance patterns.

The Corps of Engineers uses the following method when it foresees a future conflict between a flood control project and a proposed harbor work which the state desires and the Corps does not wish to deny. While the flood control project awaits either federal funds or state approval of particulars, the Corps will write both the applicant for the proposed harbor work and the local authorities that, if a conflict arises when construction on the project begins, the Corps may compel the builder of the proposed works to take remedial action.<sup>29</sup>

5. **ZONING**—On land, establishing restrictive zoning is now an accepted way of ensuring that future changes in the use of land will be non-conflicting. The same tool is equally applicable to protect future uses in coastal waters. Suppose, for example, zoning is desired to accomplish the following:

- 1) to keep the view from bayshore parks, beaches and homes one worth coming to see;
- 2) to open part of the offshore bottom to scenic viewing through glassbottom boats;
- 3) to create air taxi service by devoting part of the bay

surface to seaplane access four times per day instead of tying up permanent land use for airports; and  
4) to permit aquaculture in a manner least disruptive of navigation, fishing and swimming.

A brief look at available zoning options and the accompanying legal problems will show the strengths and weaknesses of this device.

a. *Local zoning*: One legal problem occurs where a town's zoning authority extends only to the water's edge. Where the jurisdiction section of the zoning district law describes it in terms that go "up to the shoreline," the cases hold that those districts cannot zone into submerged land areas.<sup>30</sup>

Another problem exists when the zoning district goes into the water but the ownership of tidal submerged land and control of the waters above it remain in the state. The rule apparently is that the zoning is good against private parties but not good against the state should it desire to use the area for some other purpose.<sup>31</sup>

This problem of overlapping jurisdictions is not novel in navigable waters regulation. From the beginning, navigable waters of the United States have been under federal jurisdiction, now delegated, via the Secretary of the Army, to the Corps of Engineers, as well as to state jurisdiction.<sup>32</sup> The net result is that the lawyer must satisfy both simultaneously—unless some overriding supremacy is expressly or impliedly laid down by Congress.

Local zoning jurisdiction is not always, however, an unmixed blessing. Rule-making traditionally concerned with land uses may be unable to cope with special coastal needs, as where the zoning law governing a house built on stilts over tidewaters requires it to have a minimum-sized side lot,<sup>33</sup> or where

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29. For the power of the Corps of Engineers to make permits revocable, see authorities cited *supra* note 3.

30. R. M. ANDERSON, 1 AMERICAN LAW OF ZONING ¶ 8.13 (1968).

31. See ANDERSON, *supra* note 30 at ¶ 8.13.

32. See cases cited note 6 *supra*. The Secretary of the Army retains review powers on appeal in some cases, e.g., since 1947 in appeals from the Chief of Engineers' decisions on water supply matters. See 40 U.S.C. § 52 (1964.).

33. *Cf.*, *Wynn v. Margate City*, 9 N.J. Misc. 1324, 157 A.565 (1931) (minimum side lot upheld on fire control grounds).

zoners—attempting to cope with a vanishing marsh ecology—frame the permitted uses too narrowly to zone constitutionally.<sup>34</sup>

b. *State zoning*: Moving the allocation of uses to the state level has several advantages. First, it avoids one level of overlap. Second, it avoids the problem of zoning across district boundaries where one of the districts is unwilling to cooperate, often for reasons unrelated to the zoning itself. Third, it keeps the zoning aligned with the state's ownership and leasing powers in most cases. For example, in the hypothetical discussed above, the bay view from one side will in part depend on the opposite side's zoning scheme. Only an authority greater than the smaller communities can safely protect the aesthetic values involved.<sup>35</sup>

c. *Regional zoning*: This level of zoning allows decisions which are not dictated by arbitrary state-bounded moulds. In transportation questions the area being served often is governed by more than one state.<sup>36</sup> Thus, unnecessary risk to human life may result if a "second-best" landing and takeoff approach is selected for an airport solely because of state boundaries. Regional zoning can obviate this dilemma. Already, the New York Port Authority jurisdiction covering common New York-New Jersey waters provides exemplary regional solutions to some similar problems. Also, pollution problems on common boundary rivers, as between Connecticut and Rhode Island, are appropriately being tackled regionally by interstate commissions.

One other area where regional zoning may be appropriate is in fishery management. Here state compacts have been authorized for regional fisheries, and, where all states whose citizens use the fishery participate, the regional commissions—currently the Atlantic States Marine Fisheries Commission, the Gulf States Marine Fisheries Commission and the Pacific States Marine Fisheries Commission—can be given power to regulate any given territorial fishery.<sup>37</sup> To date, these

34. See e.g., *Morris Co. Land Improvement Co. v. Parsippany-Troy Hills Twp.*, 40 N.J. 539, 193 A.2d 232 (1963).

35. On protection of the view, see Note, *Recognition of Aesthetic Values*, 24 VA. L. REV. 581 (1938); Dukeimer, *Zoning for Aesthetic Objectives: A Reappraisal*, 20 LAW & CONTEMP. PROB. 218 (1955). See also, Note, *Techniques for Preserving Open Spaces*, 75 HARV. L. REV. 1622 (1962).

36. On Downtown Airlines' seaplane service on the New York-Philadelphia-Washington run starting July 1, 1969, exactly such regional considerations are involved. See N.Y. Times, March 27, 1969, at 78, col. 8.

37. See 16 U.S.C. § 667(a), 56 Stat. 261 (1940) amended by 64 Stat. 467 (1950).

regional powers to set aside fishery management areas in state territorial seas have not been used.<sup>38</sup>

d. *Federal zoning*: One form of federal zoning worth noting is that conducted by the Corps of Engineers which establishes "Harbor Lines" as a form of present decision-making with respect to future uses. Briefly, on a chart of a harbor or cove a line is drawn away from the shore. This demarcates the area offshore in which the primacy of navigational freedom will be protected over other uses. Such a line of demarcation also sets off an area in which navigational freedom will be allowed to be subordinated to other uses. For example, under an 1899 statute, state-granted rights to extend the shoreline by filling will be allowed out to "the bulkhead line;" permits for piers and docks jutting out into the harbor will be approved out to "the harbor line."<sup>39</sup> Therefore, these "harbor lines" can be used to set off in advance areas not to be encroached upon by projects for a municipal vertical take-off and landing stage, for a commercial test-zone for shorebased industry, or for a future allocation of aquaculture zones in an unpolluted area (or even in a polluted one where depuration processes are assured).

The recent creation of National Seashores Recreational Areas has just ushered in a whole new area of federal zoning. Here, two things are of interest to the lawyer. The jurisdictional bounds of the National Seashores Recreational Area may extend into the offshore waters. For example, on the Cape Cod National Seashore long strips of water within one quarter to one half mile of the shore are placed under the zoning authority of the Secretary of the Interior.<sup>40</sup> Moreover, unless the Secretary approves a town zoning law as to certain "improved property," this federal official remains the sole zoning authority to grant exceptions to prohibitions against commercial and industrial use,

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See also 56 Stat. 267 (1942) (Atlantic), 63 Stat. 70 (1949) (Gulf), and 61 Stat. 419 (1947) (Pacific).

38. Cf., The Potomac River Compact between Maryland and Virginia has some aspects of a regional management scheme.

39. Under the Harbors and Rivers Act of 1899, 33 U.S.C. §§ 403 and 406 (1964), federal permit requirements receive criminal misdemeanor sanctions if non-permit altering of navigable waters takes place "outside established harbor lines or, where no harbor lines have been established, without the consent of the Chief of Engineers."

40. 6 U.S.C. § 459b (1964). Compare Singapore's recent zoning of two offshore islands for resort purposes exclusively. N.Y. Times, March 23, 1969, sec. 10, at 9, col. 1.

to preserve by frontage and setback requirements future aesthetic interests, and to zone in particular for:

camping	sailing	historic site or
swimming	hunting	natural feature
boating	fishing	preservation. . .

and "other activities of a similar nature."<sup>41</sup> The thrust of the National Seashore designation is to preserve certain "natural treasures" for future use. The opportunities to provide—and hence to build into present zoning—similar future uses, such as underwater parks, abound.

e. *Private zoning*: Restrictive covenants to retain a certain amount of wooded land in suburban housing areas have become increasingly common. In addition to this established form of zoning, private conservation groups recently have zoned developments of large coastal areas. In England, for instance, the National Trust has been buying up historic or beautiful places since 1895. Recently, it embarked on a campaign to buy up coastal stretches before their natural beauty disappears by indiscriminate construction. In the first year, 19 miles of coastline was saved by the private funds raised.<sup>42</sup>

An even bolder program requires no outlay of money at all. A land owner is persuaded to "sell" his land to the National Trust, and then to take a reconveyance back with a covenant running with the land. Around the Dover area, for example, this covenant may stipulate that no structure shall be built within 100 feet of the cliff edge, nor shall one exceed 30 feet in height, and the property shall not be sold for commercial use. It is worth noting that the need for such private zoning in England stems not so much from an absence of local zoning competence, but from the failure of that competence in many scenic places to save irreplaceable seascapes. In the United States, such organizations as The Trustees of the Reservation in Massachusetts and the National Conservancy are doing the same thing from Boston Harbor headlands to salt marsh rescue operations.<sup>43</sup>

41. 6 U.S.C. §§ 459b-4(b), 459b-6 (1964). *Cf.*, Fire Island National Seashore, 16 U.S.C. § 459e (1964), Assateague National Seashore, 16 U.S.C. § 459f (1964), and Cape Lookout National Seashore, 16 U.S.C. § 459g (1964).

42. 1967 WHITTAKER'S ALMANACK [sic] at 448.

43. For suggestions that: 1) state statutes be altered where necessary to permit state authorities to enforce private covenants, and 2) tax laws be applied to encourage amending fee interests as capable of charitable gift assessment, *see* Eveleth, *New*



6. USE BANKS—The obvious problem facing anyone designing coastal regulatory procedures is how to ensure that possible future uses will be available to and considered by officials and town councils whose experience is only with existing uses. The inventory process mentioned above is one way. The gathering of potential uses—plus information about them—into what might be called “Use Banks” is another. In its simplest form this may consist merely of a checklist of possible uses to be considered during the investigatory stages, or elsewhere up the line of decision. Would this be too exhaustive and burdensome for efficient decision-making? Yes, if carried to the extreme; no, if tailored to specific types of applications or locations. An added advantage is that the uses stored in the Use Bank can readily be adapted to computerized operations, a logical tool for the kind of coastal management system recommended in January of 1969 by the President’s Commission on Marine Science, Engineering and Resources.<sup>44</sup>

7. PERMIT RESTRICTIONS—Another device which should be augmented is that of requiring applicants to restrict their projects so that future uses will not be subverted by needless expansion of the proposed project. For example, the Convention on the Continental Shelf requires states allowing offshore installations beyond their territorial seas to “entirely remove” these installations after they are abandoned or fall into disuse.<sup>45</sup> This is the minimum protection anticipatory uses deserve.<sup>46</sup> When the economic rewards from granting one use permission—i.e., to build an unloading dock for a lumber yard—and the social value of retaining community options for other uses—i.e., to build a beach—are both high, the device of making the applicant agree in advance to reopen the option may be appropriate. In fact, we already demand a host of protective measures in more traditional protective areas; one seeking to dam a river in which fish are known to run is usually required to provide a fishladder.

8. PLANNING—One recent event which resulted from ad-

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*Techniques to Preserve Areas of Scenic Attraction in Established Rural Residential Communities—The Lake George Approach*, 16 SYR. L. REV. 37 (1964).

44. See, e.g., OUR NATION AND THE SEA, *supra* note 12, at 56 *et seq.*

45. U.N. Doc. A/Conf. 13/L.55, 499 U.N.T.S. 312, art. 5(5), in force June 10, 1964.

46. Cf., The Corps of Engineers’ general conditions require removal if not completed by time the permit expires or is revoked. CORPS OF ENGINEERS, *supra* note 7, at 11.

vanced planning for future coastal water uses was the announcement by the French Port Authority of Le Havre of plans to construct, at some future date, an artificial U-shaped island some 17 miles offshore to unload oil from 500,000-ton tankers.<sup>47</sup> This will: 1) open up the Port itself to new uses by eliminating the oily scum which now inundates it, 2) open the way to tripling oil imports while lowering shipping costs, and 3) put the large oil tankers where they belong—away from competing coastal users.<sup>48</sup> More highly technical projects may require a professionally-staffed planning board or commission, and possibly even new planning levels. As the following comment suggests:

Does it make sense, for example, for the port of Providence to be developed independently of the port of Boston? Projecting present trends in ship-building, cargo-handling and costs, should one think about building a completely new kind of port somewhere else in New England?<sup>49</sup>

### III. CREATIVE DEVICES FOR ANTICIPATORY USES

The Commission on Marine Science, Engineering and Resources recommended that the federal government alone should finance ocean activities with some eight billion dollars over a ten year period; one billion would go just to management of coastal zones.<sup>50</sup> Thus there will be a growing need for new devices to improve protection of anticipatory uses. Four such devices, set forth below, suggest, that imaginative borrowing from other areas may prove one of the most fruitful sources for new techniques.

1. OMBUDSMEN FOR THE FUTURE—At the time of the Santa Barbara Channel Oil accident it was suggested that perhaps future leases should be scrutinized by an *ombudsman*, an overseer who guards against administrative abuse or oversight.<sup>51</sup> The key differences between an anticipatory use *ombudsman* and present processes are: first, his primary job would be evaluating

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47. N.Y. Times, Feb. 9, 1969, at 94, col. 6.

48. This last was one of the most important recommendations of the Commission on Marine Science, Engineering and Resources. See *OUR NATION AND THE SEA*, *supra* note 12, at 69-70.

49. Knauss, *We Need to Plan Now for the Best Use of Offshore Resources*, 43 *MARITIMES*, no. 1, at 11 (1969).

50. *OUR NATION AND THE SEA*, *supra* note 12, at 256.

51. The office of an ombudsmen is employed in Scandinavia and New Zealand, as well as in several cities in the United States.

anticipatory uses, whereas the present overload on officials almost guarantees that contemporary uses will occupy most of their thoughts and time; second, he develops a specific expertise in a fast-moving technology of developing uses; third, he represents the absent prospective user, a representation singularly lacking today.

The notion of the *ombudsman* for coastal development could be carried into practice by assigning responsibility for evaluation of anticipatory uses in project proposals to one staff member of any Port Authority, State Department of Natural Resources or District Engineer's office. One expected result would be the introduction into the approval process of more modifications, thus preserving projects like underwater parks or offshore "aquaports".<sup>52</sup> Another might be the more frequent use of a permit made subject to express notice that removal or change may be required for subsequent uses.

2. THE SPECIAL REPORT SECTION—With no added expense, administrative regulations could require that all applications and reports include descriptions of relevant future uses, the impact of the proposal upon them, and what safeguards are proposed, if any, to minimize unwarranted harm or loss of utility. In a few places, this has already become routine in some measure. For example, the Corps of Engineers already requires those applying (1) to dredge, (2) to discharge heated water from a steam power plant, or (3) to use fill in such a way as to "have a pollution impact on a waterway," to present alternate methods and their impact on the environment.<sup>53</sup>

3. HISTORICAL ANALYSES—Historians, too, will be able to uncover past uses or past studies upon which inventories, use banks and planning authorities may draw. For example, the 1930's studies on the tidal electricity potential from Passamaquoddy Bay in Maine will be helpful in planning locations for future tidal power plant projects.<sup>54</sup> Similarly, planning for aquaculture zones will profit from historical studies of past marine cultivation. For instance, a study of the history of

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52. *Cf.*, the Federal Aviation Agency study which visualizes four possible kinds of aquaports, of which two are offshore on piles or floating islands while two are by polder or fill processes, misnomered "reclamation" in the past because of lack of knowledge about shore ecologies. See N.Y. Times, Dec. 2, 1968, at 94, col. 5.

53. CORP. OF ENGINEERS, *supra* note 7, at 11.

54. See N.Y. Times, Nov. 27, 1966, at 14, col. 1.

commercial fishing in Narragansett Bay revealed that in 1914 oyster farming was so extensive that almost half the bottom of the bay, under less than 30 feet of water, was leased by the State of Rhode Island for cultivating oysters.<sup>55</sup> Today, only one man experiments with a small oyster raft tied to his pier. Tomorrow's zoning, however, should provide for feasibility studies on oyster beds in Narragansett Bay. Here, the historical analysis not only uncovers this possibility, but also may provide clues on how to prevent destruction of the beds.

Finally, only historical analyses will disclose the areas where certain uses, such as ground level habitation, invite damage. Building homes which are likely to be ruined by tidal surges or hurricanes ought to be made a thing of the past. Yet isolated disasters, like the 1969 Mud Slide Catastrophe in Southern California,<sup>56</sup> appear to decision-makers as isolated incidents and engender little thought about possible recurrences.

In the tidal surge area it is now possible by historical analysis to inform each potential builder of the probabilities of flooding, and to design appropriate zoning or building safeguards.<sup>57</sup> One case has held that restrictions against building on shorelands that are zoned non-residential may be under some circumstances tantamount to an unlawful taking without compensation.<sup>58</sup> But that case may be distinguishable: prior to imposition of the restrictions, the town of Fairfield permitted large sums in public utilities (like a sewerage system) for the area. However, similar to the Corps of Engineers' denial of a permit where the structure is likely to fall into coastal waters, the restriction of flooding shorelands—especially when dune-levelling itself threatens the stability of the shore—should not be considered unreasonable.<sup>59</sup>

#### 4. SPECIAL TRIBUNALS—Where an official is faced with

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55. See ALEXANDER, *supra* note 27, at 17, 45-46.

56. Between January 22 and January 25, 1969, at least 44 persons died in the mud slides on sharply graded slopes where unprotected houses had been built, because of ten days of torrential rains. N.Y. Times, Jan. 23, 1969, at 94, col. 1; Jan. 26, 1969, at 1, col. 4. For the regulatory background behind such building, see Hill, *California Mud Slides Have Many Causes*, N.Y. Times, Jan. 30, 1969, at 14, col. 1.

57. See, e.g., Rhode Island Development Council, *Hurricane Rehabilitation Study—Interim Report* (1954), and Chief of Engineers, Narragansett Pier, Rhode Island—*Report on Hurricanes* (1961); see generally, Dunham, *Flood Control via the Police Power*, 107 U. PA. L. REV. 1098 (1959).

conflicting evidence on possible harms to anticipatory uses, the present law favors one requesting the potentially harmful work. This is so because of two facts: first, the official called upon to make the decision may find a given factual dispute beyond his own competence; second, the burden is on the opposition to affirmatively establish the harmful effect, and the official tends to treat conflict-of-testimony situations as ones in which the opposition has failed to carry its burden. The net result: present uses prevail; society's interest in protecting future uses suffers.

A device used in Finland where possible pollution of coastal waters is involved can prove useful in American coastal management. Permits for coastal dumping are referred to a district Water Rights Court rather than an ordinary civil servant. This is particularly appropriate for such cases where political, rather than protective considerations dictate the granting of permits. This problem can be eliminated in such cases by introducing an impartial tribunal's opinion into the permit-granting process.

#### IV. CONCLUSION

This analysis of the consideration accorded anticipatory uses with respect to applications for coastal projects is, at best, a beginning. Furthermore, the suggested devices to remedy the situation clearly are not exhaustive. More detailed work in this area is needed.

The case-centered approach to law has led to considerable borrowing in areas which themselves always turn on court cases, as in criminal law. In coastal management, however, we are far behind European administrative law practices of borrowing from one another. Moreover, we cannot afford to "take the cash, and let the credit go," for, in planning for future shore uses, the forewarned rumble is increasingly of a "not-far-distant drum."

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58. *Dooley v. Zoning Comm. of the Town of Fairfield*, 151 Conn. 304, 197 A.2d 770 (1964).

59. See J. METZENBAUM, 3 *LAW OF ZONING* 2101 (1955) and the Los Angeles flood control zoning sections set forth. *Id.* at 2102.

60. Law of March 5, 1965 concerning the Prevention of Pollution of the Sea, in Survey of National Legislation concerning the Sea-Bed and the Ocean Floor, and the Subsoil thereof, underlying the High Seas beyond the Limits of Present National Jurisdiction, U.N. Doc. A/AC.135/11 (1965).