The Law of the Coast in a Clamshell*

Part 1: Overview of an Interdisciplinary Approach

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INTRODUCTION

The coastal zone—that fragile strip of the earth where the sea and the land meet—has fascinated mankind for centuries. During 1980, the Year of the Coast, many Americans from diverse disciplines are examining the coastline of the United States as never before. This examinination into the nature, problems and potential of the coastal zone is more meaningful when based upon an understanding of fundamental legal principles applicable to the lands and waters in that zone.

1. A Working Definition of the Coastal Zone. Before summarizing some of these principles, a working definition of the term "coastal zone" is necessary.

The term is defined differently in the federal Coastal Zone Management Act of 1972 (CZMA)[1] than in the several state coastal management statutes. The CZMA defines the coastal zone, in part, as:

> ". . . the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and [including] transitional and intertidal areas, salt marshes, wetlands, and beaches. . . ."[2]

The articles in this series use "coastal zone" to refer to that area consisting of three categories of land:

a. **Uplands,** or littoral lands lying landward of (above) the line of mean high water, including (for this purpose) swamp and overflowed lands and the dry-sand portion of beaches.

b. **Tidelands,** or those lands lying between the lines of mean high and mean low water, referred to in England and some states as the foreshore.

c. **Submerged lands,** or those lands lying seaward of (below) the line of mean low water, regardless of whether they are in state or federal ownership.

2. Putting the Rules of Law Into Perspective. Ancient civilizations that grew and prospered—and sometimes declined—along the shores of tidal waters provide the prologue for today's law of the coast in the United States. How many of our present legal concepts are derived from the customs or practices of the early Egyptians or Greeks? No one knows for sure.

But we do know that the roots of our contemporary rules of law concerning the coastal zone may be traced back at least to the time of the Roman Empire. The *Institutes* of Justinian, the Roman emperor (483–565 A.D.), are the foundation of the public trust doctrine, which assures Americans' rights to fish and swim in and otherwise enjoy U.S. coastal waters.

Although legal scholars traditionally have cited earlier laws and customs as the bases for contemporary rules of law, the important role that science and technology play in the application of these current rules—particularly those governing the determination of tidal boundaries—is sometimes overlooked or underemphasized.

HISTORICAL BACKGROUND OF THE LAW

A. Two Systems of Jurisprudence

Contemporary United States law relating to the coastal zone stems from principles developed in two major systems of jurisprudence: (1) the civil law, which originated in ancient Rome and is followed in Continental Europe, and (2) the common law, which evolved in England and has been generally adopted by the 13 original states and most later-admitted states.

B. The Civil Law

The Mediterranean Sea, an important avenue of commerce and navigation during the Roman Empire,

*This is the first in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. This article presents an overview, including a brief review of the historical background of the law and summaries of the rules of law pertaining to the title to and boundaries of lands within the coastal zone, the public trust doctrine and related topics. Since it is an overview, some of the broad statements in it are inapplicable in some jurisdictions. The views expressed in the articles do not necessarily reflect those of the Office of the Attorney General, State of California, or of any other agency of the State of California.

influenced the development of the civil law of the coast. Early Roman law proclaimed that the sea and the seashore were *res communes*, or "common to all," and not subject to private ownership.[3]

Louisiana, carved out of the vast area acquired from France by the Louisiana Purchase, still follows some civil-law concepts.[4] In Texas, the civil law governs boundaries of littoral lands conveyed by the Spanish and Mexican governments before the founding of the Republic of Texas.[5]

C. The English Common Law

Conventional wisdom is that under the English common law, which evolved in that seafaring island kingdom over many centuries, the crown owns the tide and submerged lands.[6] But this statement is simplistic. In fact, there is evidence that early English kings granted favored lords title to and exclusive private rights of fishery in many tidal areas.[7]

While the Magna Carta (1215) expressly addresses navigational and fishing rights only briefly, some legal commentators believe that it was a turning point in English coastal law.[8] Subsequently, the interest of the public in tidal waters was given greater legal protection in England.

Thomas Digges, a lawyer, engineer and surveyor, is credited with developing the theory that the crown owns the lands underlying tidal waters. Circa 1568–69, during the reign of Queen Elizabeth I, he wrote a treatise entitled *Proofs of the Queen's Interest in Lands left by the Sea and the Salt Shores thereof*. As a later English legal scholar stated: "By this treatise was first invented and set up the claim of the Crown to the foreshore, reclaimed land, salt marsh, and derelict land in right of the prerogative."[9]

Although the English courts did not immediately embrace Digges' theory, the doctrine of the crown's *prima facie* title in tidelands was generally accepted under English common law within the following century.[10] Sir Matthew Hale (Fig. 1), an influential jurist

Fig. 1. The Rt. Hon. Sir Matthew Hale (From Fourteen English Judges, by The Earl of Birkenhead).

who was to become lord chief justice, espoused Digges' theory in the treatise *De Jure Maris*, written circa 1666–67.[11]

D. Application of the English Common Law in the American Colonies

The early American colonists generally had been exposed to the English common law through their heritage, but "[t]he remoteness of England coupled with the inadequacy of early English administrative machinery for colonial affairs, left these colonists very largely free from external impositions of the common law for a substantial period of time . . . ."[12]

However, as the colonies grew, application of the English common law became more widespread. This development ". . . can be regarded as the joint product of (1) the English Government's desire to unify the colonies for purposes of the empire's commercial gain; and (2) the colonists' desire to gain freedom from tyranny and exploitation by asserting the inherited 'rights of Englishmen.' "[13]

E. Effect of the American Revolution and the Independence of the Former Colonies

With the American Revolution, the former colonies, by virtue of their new sovereignty, succeeded to the rights of the English crown and Parliament in colonial tidelands. Absolute title to all tidelands was vested in the original states, in trust, except for those lands that had been previously and validly granted into private ownership.[14]

In 1789 the original states surrendered to the Federal Government some of their rights in the tidelands by adopting the United States Constitution, which provides the bases of the Federal Government's commerce clause powers and its admiralty jurisdiction.[15]

The term "federal navigational servitude" refers to the Federal Government's paramount authority to control and regulate the navigable waters of the United States under the commerce clause.

Due to this nation's dual legal system, jurisdiction is divided between the federal courts and the various states' courts. Each state is free to adopt its own rules of real property. Generally, questions of title to and the legal boundaries of lands within the coastal zone are determined under the appropriate state constitution, statutes and case law.

F. Impact of the Subsequently Admitted States' Rights Under the Equal-Footing Doctrine

In 1845 the United States Supreme Court declared that as new states are subsequently admitted to the Union, they are deemed to have the same sovereignty and property rights as the original 13 states.[16] This concept is known as the equal-footing doctrine.

Under this doctrine, as the United States acquired additional territory, title to all lands beneath tidal and other navigable waters vested in the nation, subject to valid grants by prior governments, in trust for future states. Upon creation of a new sovereign state from such acquired areas, or from the lands formerly within an older state, the new coastal state became vested with title to all lands underlying tidal waters.

The after-admitted states' sovereign title to tide-

lands, except for those lands previously granted, is absolute, although subject to the public trust easement and the Federal Government's paramount navigational servitude and admiralty jurisdiction.

TITLE TO LANDS WITHIN THE COASTAL ZONE

A. Uplands

In general, most littoral lands along the American coasts are privately owned. But a surprisingly large portion of these uplands is owned by various governmental entities, ranging from the Federal Government to municipalities.

B. Tidelands

Generally, the coastal states or their governmental grantees own the tidelands, subject to the public trust easement to be discussed below, except for lands validly granted into private ownership by prior foreign or colonial governments or conveyed by the states themselves.

C. Submerged Lands

The term "submerged lands" has been used generically in this article to describe lands lying seaward of the line of mean low water. But a more precise classification of the categories of these lands is necessary for title analysis.

Under the Submerged Lands Act of 1953,[17] the coastal states, in general, own the submerged lands within a 3-geographical-mile-wide belt beyond the tidelands. But Texas and Florida (as to its Gulf of Mexico coast only) have title to submerged lands to a line 3 leagues, or 9 geographical miles, seaward of the baseline set forth in the act. Some states have granted submerged lands to cities and other governmental entities.

In 1953 Congress also passed the Outer Continental Shelf (OCS) Lands Act,[18] which constituted Congress' first assertion of "jurisdiction over the vast submarine area that fringes our coasts and over which the high seas flow."[19]

This law applies to those submerged lands lying seaward of the lands owned by the states. Under the Outer Continental Shelf Lands Act, the United States has jurisdiction over these submerged lands, and the secretary of the interior may lease the lands for exploration and drilling of mineral resources.[20]

DETERMINATION OF TIDAL BOUNDARIES

A. Principal Boundary Problems

Historically, many critical legal disputes involving the determination of boundaries between different categories of land within the coastal zone have focused on (1) the threshold issue of what constitutes the legal boundary between privately owned uplands and state-owned tidelands and (2) the practical question of how that line is to be located on the ground.

Another major controversy has been over what line constitutes the proper boundary between the submerged lands subject to the Federal Government's exclusive jurisdiction and control and the adjoining state-owned lands.

The legal effect of physical changes in the location of the tidal boundaries and other tide-defined contour lines—resulting from accretion, erosion, reliction or avulsion—has been another frequently disputed subject.

B. Basic Elements in Tidal Boundary Determination

Determination of both private/state boundaries and state/federal boundaries, delimiting classifications of lands within the coastal zone, involves use of data derived from tidal observations. In the United States, this information is compiled and published by the National Ocean Survey (NOS).[21]

Essentially, tidal boundary determination is a function of the relationship between (1) a vertical elevation and (2) a horizontal element. As stated by Aaron L. Shalowitz, the legendary lawyer, engineer and author for NOS's predecessor agency:

> "Boundaries determined by the course of the tides involve two engineering aspects: a vertical one, predicated on the height reached by the tide during its vertical rise and fall, and constituting a tidal plane or datum, such as mean high water, mean low water, etc.; and a horizontal one, related to the line where the tidal plane intersects the shore to form the tidal boundary desired, for example, mean high-water mark, mean low-water mark, . . . The first is derived from tidal observations alone, and, once derived (on the basis of long-term observations), is for all practical purposes a permanent one. The second is dependent on the first, but is also affected by the natural processes of erosion and accretion, and the artificial changes made by man. A water boundary determined by tidal definition is thus not a fixed, visible mark on the ground, such as a roadway or fence, but represents a condition at the water's edge during a particular instant of the tidal cycle."[22]

The English common law recognized the physical fact of accretion, erosion and reliction. As one treatise puts it: "The sea shore or foreshore [*i.e.*, tidelands] is therefore a movable freehold varying as the water gradually and imperceptibly recedes or encroaches . . . ."[23]

C. Applicable Scientific Principles and Technical Data

Clearly, rules of law about what constitutes property boundaries defined in terms of the tide should be considered within the context of relevant contemporary scientific principles and available technical data.

Frequently, littoral property owners and other laymen do not appreciate the interplay between the rules of law and these scientific/technical elements. Space does not permit a detailed analysis here, and it is assumed that readers are familiar with phases of the tide, types of tide, tidal datums, tidal epochs and various physical processes affecting the coastal zone.

D. The Basic Legal Rules of Demarcation of Tidal Boundaries

A legal boundary defined in terms of the tide—whether a high-water or a low-water boundary—is the intersection of the relevant local tidal datum with the sloping shore delimiting the boundary.[24]

No uniform American rule of law concerning demarcation of tidal boundaries is universally applicable in all federal and state courts. This occurs partly because of this country's dual federal-state system, and partly because of the historical permutations and combinations that contributed to development of each state's local real property law.

1. The Civil-Law Rule. Under the Roman law's principle of communal ownership of the seashore, the boundary between privately and publicly owned coastal lands is the highest wash of the winter waves.[25]

2. The English Common-Law Rule. About 1666–67, a milestone in English common-law tidal boundary determination occurred when Sir Matthew Hale (1609–1676), who had espoused the theory of the crown's *prima facie* ownership of the tidelands, wrote his influential *De Jure Maris*.[26]

The respected Lord Hale's legal treatise classified the shoreline on the basis of what he perceived to be three types of tide:

> "(1st.) The high spring tides, which are the fluxes of the sea at those tides that happen at the two equinoxials; . . .
>
> "(2d) The spring tides, which happen twice every month at full and change of the moon; . . .
>
> "(3d) Ordinary tides, or nepe [*sic*] tides, which happen between the full and change of the moon . . . ."[27]

Apparently, Lord Hale introduced the concept that what he termed "nepe" or "neap" tides should be considered the "ordinary tides" for property boundary purposes. In his treatise, he concluded that lands subject to inundation by tides of the first two of his three classes can be privately owned, but that the foreshore owned by the crown extends landward as far as it is covered by "the ordinary flux of the sea."

As Shalowitz correctly points out:

> ". . . Lord Hale's designation of 'neap tides' shows that it is susceptible of two interpretations: (1) all the tides that occur between the full and change of the moon, and (2) only those tides that occur twice a month at the time of the first and third quarters when the moon is in quadrature."[28]

Ironically, about the same time Lord Hale was writing about his perception of the types of tide, another Englishman, Sir Isaac Newton (1642–1727) (Fig. 2), was evolving the first workable scientific tidal theory, based upon his universal theory of gravitation. In 1666, Sir Isaac "began to think of gravity extending to the orb of the moon." When the third and final book in Sir Isaac's *Principia* was published in 1687, planetary motions were explained under his universal theory of gravitation.[29]

Unfortunately, Lord Hale died before the publication of *Principia* and it appears that no other English

Fig. 2. Sir Isaac Newton (From Essays on the Life and Work of Newton, by Augustus De Morgan).

common-law jurist of the 17th century realized that Lord Hale's equating "neap tides" with "ordinary tides" was unscientific. Indeed, for the next century and a half, the disciplines of law and science apparently did not comprehend one another's views about the nature of the tide.

During the 18th and 19th centuries, the common-law term "ordinary high-water mark" generally was recognized in England as describing the boundary between the sovereign's tidelands and the adjoining privately owned littoral lands. This legal term is imprecise and susceptible to several interpretations.

The case of *Attorney-General* v. *Chambers*,[30] decided in 1854, is the classic English common-law tidal boundary decision. In that case, the lord chancellor ruled that the ordinary high-water mark was to be determined by "the average of the medium tides in each quarter of a lunar evolution during the year [which line] gives the limit, in the absence of all usage, to the rights of the Crown on the sea-shore."

3. Summary of Legal Boundary Determination Rules of the United States. In 1935 the United States Supreme Court's landmark decision on tidal boundary determination was reached in *Borax, Ltd.* v. *City of Los*

Angeles.[31] The court in effect held that, in interpreting a federal upland patent bordering on tidelands, the legal term "ordinary high-water mark" should be equated with the technical phrase "line of mean high water," and that the boundary is the intersection of the tidal datum of mean high water, as determined by the Federal Government, with the land.

The court, after considering Lord Hale's 1666-67 legal treatise on the types of shorelands and the 1854 English *Chambers* decision, rejected the use of "neap high tides" for determining the ordinary high-water mark. Instead, taking judicial notice of the Coast and Geodetic Survey's definition of mean high water, the court held that the upland/tideland boundary is to be determined by using the mean of *all* the high waters over an 18.6-year tidal cycle.

In essence, the *Borax* decision applies modern scientific and technical data to the English *Chambers* rule, thus adapting it to improved technology and setting forth a workable method of precisely defining the tidal boundary in question.

By and large, most American coastal states have adhered to the basic English common-law rule that the ordinary high-water mark—or its updated, more scientific counterpart, the line of mean high water—constitutes the legal boundary between privately owned uplands and state-owned tidelands. As a generalization, subject to many qualifications, 16 coastal states deem the mean high-water line to be the private/state tidal boundary.[32]

On the other hand, six Atlantic Coast states have departed from the English common-law boundary and utilize the mean low-water line as the private/public tidal boundary.[33]

The civil-law rule of private/public tidal boundary determination has had an effect in Louisiana and, to a lesser extent, in Texas. In Louisiana, the private/state tidal boundary is the line of the highest winter tide.[34] In Texas, if the original source of upland title is a Spanish or Mexican grant predating Texas' independence, the line of mean higher high water is the legal boundary.[35]

Hawaii adheres to its aboriginal, customary concept that the private/public boundary is marked by the upper reaches of the wash of the waves.[36]

4. Legal Effect of Physical Changes in the Location of the Shoreline. In general, the federal courts and most coastal states recognize the concept of ambulatory tidal boundaries. Consequently, "gradual, imperceptible" physical changes in the location on the ground of the boundary—whether it be a high- or low-water line and whether naturally or artificially caused—result in a shift of the legal boundary.[37] The littoral owners and the states thus can both gain and lose land as the legal boundary fluctuates because of accretion, erosion or reliction. A minority rule is that the physical change must be due to natural phenomena rather than induced artificially by the works of man.[38]

On the other hand, avulsions—sudden, perceptible changes in the physical location of the boundary—generally do not result in an adjustment of the legal boundary between private uplands and state-owned tidelands.[39]

THE PUBLIC TRUST DOCTRINE

A. Origin and Development

Although generally referred to as the common-law public trust doctrine, the concept that the public has the right to use navigable waters irrespective of who owns the underlying lands dates back to ancient Rome.

The early Roman civil law provided that the sea and the shoreline were held in common. One translation of the *Institutes* of Justinian reads in part:

> "No one . . . is forbidden access to the seashore, provided he abstains from injury to [improvements] . . . . [A]ll . . . harbours are public, so that all persons have a right to fish therein . . . . Again, the public use of the seashore, as of the sea itself, is part of the law of nations; consequently, everyone is free . . . to dry his nets and haul them up from the sea . . . ."[40]

In England, the public's rights in tidelands increased through the centuries following the Magna Carta (1215). Statutes and decisions in cases recognized these expanding public rights to navigate and fish in tidal waters and to use the lands underlying such waters for related purposes.

With the increasing tempo of English commerce and the industrial revolution, the development of the public trust doctrine accelerated. The doctrine generally evolved "in the framework of a series of public easements imposed on a largely private fee ownership system rather than that of public ownership through the state . . ."[41]

Jus publicum, as the jurists and legal scholars refer to such public trust easements, thus is distinguishable from *jus privatum*, or the proprietary right in tidelands held by the crown, its private grantees or their successors.[42]

B. American Expansion of the Doctrine

The common law is flexible. Americans, once independent of England, could and did expand and clarify the public trust doctrine transplanted from the English common law. The doctrine has become increasingly significant as a tool to assure the public of the right to use tide and submerged lands in the United States.

Under the public trust doctrine as generally articulated by American courts, the state, through its legislature, is a trustee for the benefit of the general public, whether the underlying title to the tidelands is in the state or has been granted to a private party.[43]

The landmark United States Supreme Court decision describing and clarifying the public trust doctrine is *Illinois Central Railroad* v. *Illinois*, decided in 1892.[44] The court, after pointing out that a state's title to tidelands differs from that which the state holds in lands intended for sale, said:

> ". . . It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties."[45]

Since that case, the trust has been traditionally defined in terms of commerce, navigation and fisheries.

Under the American federal system, each state has evolved its own rules of law as to the scope and extent of the public trust doctrine. Many states have expanded the doctrine to embrace recreational uses,[46] and in California the trust concept has been judicially construed as encompassing the preservation of tidelands in their natural state for ecological and environmental purposes.[47]

C. Termination of the Public Trust Easement

Although the states have generally expanded the public rights and interests protected by the public trust doctrine, termination of the public trust easement is permissible in limited situations.

PRIVATE LITTORAL RIGHTS

In most jurisdictions, private littoral owners have the right of access from their upland property to the adjoining navigable tidal waters. But, in general, the private right of access is subordinate to the paramount public right of navigation and governmental regulation of navigation.[48] And some state laws enable the state to exercise its authority as trustee under the public trust doctrine to deprive a private upland owner of access to a tidal waterway.[49]

The various states deal differently with private littoral rights, and since such rights are an incident of property, each state's rules must be examined. For example, in many states, littoral owners have the right to construct and maintain docks, piers and wharves, but in some jurisdictions general wharfing-out rights are not recognized.[50]

PUBLIC ACCESS RIGHTS

Frequently, the competing private and public interests in uses of the lands and waters within the coastal zone focus on whether members of the general public may legally cross privately owned lands to gain access to adjacent sandy beaches. Obviously, the general doctrine of public ownership of tide and submerged lands may be only theoretically meaningful if people cannot gain access to such lands and the waters covering them.

Congress, state legislatures and the judiciary have developed a number of methods of assuring public access to tidal waters and lands. Space does not permit a catalog of the various devices of accommodating both private and public interests, but a few examples may be cited: (1) Texas' Open Beaches Act; (2) requirements for express dedication of beach access routes; (3) the doctrine of implied dedication of such access routes; and (4) use of the common-law concept of custom.

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing and Other Proprietary Uses

The Federal Government's extensive leasing program for Outer Continental Shelf areas parallels similar leasing of state-owned tide and submerged lands.

In general, state leases of these lands must be consistent with the public trust to which they are subject. But exploration and drilling for oil and other mineral resources has been judicially sanctioned.

B. Regulatory Functions

The Federal Government and coastal state governments, as well as local governmental entities, exercise vast regulatory control over the lands and waters within the coastal zone.

1. Federal Government. Even before the Coastal Zone Management Act of 1972, the United States was deeply involved in regulation of waters within the zone. Federal regulation mushroomed with the passage of the Rivers and Harbors Act of 1899,[51] which empowered the Army Corps of Engineers to control dredging, filling and obstructions to navigation.

During the post-World War II era, various federal statutes—such as the National Environmental Policy Act of 1969[52] and the Federal Water Pollution Control Act Amendments of 1972[53]—have granted many other federal agencies regulatory powers touching on the coastal zone.

2. State and Local Governments. Environmental concern for the fragile coastal zone has also been reflected in numerous state, regional and local regulatory schemes. Commissions and agencies regulating the use and development of the zone function in California, Delaware, Florida, Massachusetts, New Jersey, Oregon and Washington.

Regional approaches have been implemented in such tidal water areas as Chesapeake Bay, Puget Sound and San Francisco Bay.

Municipalities and other local governmental entities also have played a significant part in the regulation of coastal zone lands and waters, although sometimes in the negative sense of attempting to restrict the use of beaches to residents only.

CONCLUSION

Coastal zone administrators, oceanographers, coastal engineers, surveyors and other professionals cannot deal with the land/sea interface in a legal vacuum. They should be aware of the basic relevant rules of law. Only through such an interdisciplinary approach can the coastal zone's problems be resolved and its potential realized.

REFERENCES

1. 86 Stat. 1280 (codified at 16 U.S.C. §1451 *et seq.*).
2. 86 Stat. 1281, §304(a) (codified at 16 U.S.C. §1453(a)).
3. JUSTINIAN, *Institutes* 1, 2.2, 2.3, 2.10 [hereinafter cited as Justinian].

4. See, *e.g.*, La. Civ. Code, art. 451.
5. *Luttes* v. *Texas*, 159 Tex. 500, 324 S.W.2d 167 (1958).
6. J. ANGELL, *The Right of Property in Tide Waters and in the Soil and Shores Thereof* 19-21 (2d ed. 1847) [hereinafter cited as Angell]; 2 H. Tiffany, *The Law of Real Property* §660 (3d ed. 1939).
7. 78 Am. Jur.2d, Waters §380 (1975); S. Moore, *A History of the Foreshore and the Law Relating Thereto* 667-892 (1888) [hereinafter cited as Moore].
8. Magna Carta, Clause 33, as translated in Thorme, Kurland, Dunham & Jennings, *The Great Charter* (1965); 2 American Law of Property §9.49 (Casner ed. 1952); Angell, *supra*, note 6, at 23-25; Note, *The Public Trust in Tidal Areas: A Sometime Submerged Traditional Doctrine*, 79 Yale L.J. 762, 765-766 (1970) [hereinafter cited as *The Public Trust in Tidal Areas*].
9. MOORE, *supra*, note 7, at 182.
10. *Id.* at 433.
11. *Id.* at 317-318, 370, 376-380, 384.
12. 1 R. POWELL, *The Law of Real Property* ¶44 (Rev. ed. 1977) [hereinafter cited as Powell].
13. *Id.* at ¶45.
14. 78 Am.Jur.2d, Waters §381 (1975); 65 C.J.S., Navigable Waters §94 (1966).
15. 3 American Law of Property §12.32 (Casner ed. 1952); 78 Am.Jur.2d, Waters §§381, 386 (1975); 65 C.J.S., Navigable Waters §10 (1966); 1 Powell, *supra*, note 12, at ¶163 at 703.
16. *Pollard's Lessee* v. *Hagan*, 44 U.S. (3 How.) 212 (1845). The court recently reaffirmed and clarified the doctrine in *Oregon* v. *Corvallis Sand & Gravel Co.*, 429 U.S. 363 (1977).
17. 67 Stat. 29 (codified at 43 U.S.C. §1301 *et seq.*).
18. 67 Stat. 462 (codified at 43 U.S.C. §1331 *et seq.*).
19. 1 A. SHALOWITZ, *Shore and Sea Boundaries* 181 (1962) [hereinafter cited as 1 Shalowitz].
20. *Id.* at 192.
21. SHALOWITZ, *supra*, note 19, at 87-89, 94-97; 2 A. SHALOWITZ, *Shore and Sea Boundaries*, 56-75, 363-365 (1964) [hereinafter cited as 2 Shalowitz]. NOS is the successor to the agencies formerly known as The Survey of the Coast (1807-1836), the Coast Survey (1836-1878) and the Coast and Geodetic Survey (1878-1970). The agency's origins may be traced to the Act of February 10, 1807, authorizing the president "to cause a survey to be taken of the coasts of the United States . . . ." 2 SHALOWITZ at 4.
22. 1 SHALOWITZ, *supra*, note 19, at 89-90 (footnotes omitted).
23. COULSON & FORBES, *The Law of Waters* 23-24 (6th [Hobday] ed. 1952).
24. 1 SHALOWITZ, *supra*, note 19, at 90 (Fig. 20); 2 Shalowitz, *supra*, note 21, at 49.
25. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10, 22 (1935).
26. Lord Hale's treatise, however, apparently was not published until 1787 in 1 Hargrave's Tracts. Moore, *supra*, note 7, at 318.
27. M. HALE, *DeJure Maris*, Cap. VI, as reprinted in Moore, *supra*, note 7, at 370, 392-393. See also 1 SHALOWITZ, *supra*, note 19, at 91.
28. 1 SHALOWITZ, *supra*, note 19, at 91 (footnote omitted).
29. 16 Encyclopaedia Brittanica 362 (1958).
30. 4 De G.M. & G. 206, 43 Eng. Rep. 486 (1854).
31. 296 U.S. 10 (1935).
32. Alabama, Alaska, California (subject to the "neap tide" rule to be discussed in a later article in this series), Connecticut, Florida, Maryland, Mississippi, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Texas (subject to the qualification stated in the text accompanying note 35, *infra*) and Washington. F. Maloney & R. Ausness, *The Use and Legal Significance of the Mean High Water Line in Coastal Boundary Mapping*, 53 N.C.L. Rev. 185, 200-202 (1974) [hereinafter cited as Maloney & Ausness]. Since that article was written, the Georgia Supreme Court decided that wetlands extending to the mean high-water line are publicly owned. *State* v. *Ashmore*, 236 Ga. 401, 224, S.E. 2d 334 (1976).
33. Delaware, Massachusetts, Maine, New Hampshire, Pennsylvania and Virginia. Maloney & Ausness, *supra*, note 32, at 201.
34. *Id.* at 202.
35. *Id.* at 201-202.
36. *Id.* at 202.
37. 78 Am.Jur.2d, Waters §§406-415, 419, 432 (1975); 66 C.J.S., Navigable Waters §§80-82 (1966); Maloney & Ausness, *supra*, note 32, at 224-226, 234-236. However, if the littoral owner himself artifically causes the accretion, he, in general, does not obtain title to the accreted land as against a state's competing claim. 78 Am.Jur.2d, Waters §410 (1975); 65 C.J.S., Navigable Waters §82(2) (1966); Maloney & Ausness, *supra*, note 32, at 235.
38. California follows the minority rule. See, *e.g.*, *Carpenter* v. *City of Santa Monica*, 63 Cal. App.2d 772, 147 P.2d 964 (1944).
39. 78 Am.Jur.2d, Waters §§406, 411 (1975); 65 C.J.S., Navigable Waters §86 (1966).
40. JUSTINIAN, *supra*, note 3, at 2.1.1-2.1.6.
41. *The Public Trust in Tidal Areas*, *supra*, note 8, at 769-770.
42. *Id.* at 774-788.
43. 78 Am.Jur.2d, Waters §§388, 389; *The Public Trust in Tidal Areas*, *supra*, note 8, at 787-789; Maloney & Ausness, *supra*, note 32, at 188-193.
44. 146 U.S. 387 (1892).
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46. J. SAX, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich.L.Rev. 471 (1970); *The Public Trust in Tidal Areas*, *supra*, note 8, at 784-785.
47. *Marks* v. *Whitney*, 6 Cal. 3d 251, 491 P.2d 374, 98 Cal.Rptr. 790 (1971).
48. 78 Am.Jur.2d, Waters §§93, 94, 260-262, 269, 271, 276 (1975); 65 C.J.S., Navigable Waters §§61-64, 67-71 (1966).
49. See, *e.g.*, *Colberg, Inc.* v. *State ex rel. Dep't of Pub. Works*, 67 Cal.2d 408, 432 P.2d 3, 62 Cal.Rptr. 401 (1967), *cert. denied*, 390 U.S. 949 (1968).
50. 65 C.J.S., Navigable Waters §§72-79 (1966).
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EDITOR'S NOTE

The next article in this series will summarize federal jurisdiction and key federal laws with respect to the coastal zone, and subsequent articles will deal with the individual coastal states' basic rules of law on a state-by-state basis.

The Law of the Coast in a Clamshell*

Part II: The Federal Government's Expanding Role

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SINCE WORLD WAR II, the Federal Government has played an increasingly important role in the emergence of new rules of law relating to the coastal zone.[1] Technological developments facilitating petroleum drilling further offshore, threats to diminishing fisheries resources, environmental concerns about oil spills, pressures for more effective management of the coastal zone—these are some of the reasons behind the plethora of new federal laws.

As an influential 1969 study stated:

> ". . . The technological capability to exploit oil and gas offshore is an example of a new environment created by technology, which, in turn, has had substantial impact upon the development not only of domestic law, but also of international law.
>
> "The new environment required definition of ownership and boundaries of submerged lands surrounding the United States, . . . and from the new technological capability has grown major litigation in the United States, and led to the Geneva Conferences on the Law of the Sea in 1958 and 1960."[2]

Under our dual federal/state system of government, some facet of federal law—a constitutional provision, a treaty or international agreement, a congressional act, a federal agency's rule or regulation or a federal court's decision—may be pivotal in resolving a legal problem arising within the coastal zone. When confronting such a problem, therefore, the possible applicability of federal law should be considered.

U.S. CONSTITUTIONAL PROVISIONS

The Constitution of the United States provides the underpinning for the Federal Government's expanding role in the law of the coast. The following summarizes some significant constitutional provisions.

A. The Commerce Clause

The Constitution empowers Congress to "regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes."[3] The commerce clause is the basis for much federal legislation affecting the coastal zone.

An 1824 U.S. Supreme Court decision established the Federal Government's paramount authority to regulate navigation under the commerce clause. In *Gibbons* v. *Ogden*,[4] the court held that a New York statute, which gave Robert Fulton, the famous inventor and engineer, and others the right to the exclusive navigation of that state's waters with "boats moved by fire or steam," was repugnant to the commerce clause and thus unconstitutional.

B. The Supremacy Clause

The landmark *Gibbons* case also involved application of the supremacy clause,[5] which provides in part:

> "This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; . . . "

Under the supremacy clause and the related doctrine of federal preemption, federal law prevails when a state's regulatory scheme is in conflict with a federal scheme and they cannot be reconciled or consistently stand together.

C. Admiralty Jurisdiction

In general, the federal courts rather than the various states' courts have jurisdiction over admiralty cases. The Constitution provides that the judicial power of the United States extends to "all Cases of admiralty and maritime Jurisdiction."[6]

Congress in 1789 declared that the federal district courts have exclusive original jurisdiction of all civil causes of admiralty and maritime jurisdiction.[7] But an exception permits ordinary lawsuits, as distinguished from admiralty proceedings, to be brought in state courts or as civil cases in federal courts.

This is the second in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. This article briefly summarizes some key federal laws affecting the coastal zone. Space limitations preclude an examination of other relevant federal statutes, treaties and international agreements, judicial decisions, and administrative rules and regulations. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or of any other agency of the State of California.

D. Treaty Power

Entering into treaties and international agreements affecting the territorial sea, the contiguous zone and the high seas is clearly a function of the national government instead of the individual states. The Constitution provides that the president "shall have Power, by and with the Advice and Consent of the Senate, to make treaties, provided two thirds of the Senators present concur; . . . "[8]

KEY FEDERAL STATUTES

Acts of Congress with an impact on the coastal zone date from the early days of the United States. But the post-World War II era has witnessed an unprecedented number of such federal statutes. Aside from the venerable, and still very important, Rivers and Harbors Act of 1899, the following checklist focuses on some of the more significant recent statutes.

A. Rivers and Harbors Act of 1899

This statute,[9] based upon the authority of the commerce clause of the Constitution, was intended to prevent obstructions to navigation.[10] The U.S. Army Corps of Engineers administers the act by issuing permits. The act applies to piers, breakwaters and other structures as well as to dredging and filling.

Traditionally, the Corps has been primarily concerned with protecting navigation. But under *Zabel* v. *Tabb*,[11] the Corps is required to consider ecological factors and may deny a permit when it finds that a proposed project would damage the ecology even if it would not obstruct navigation.

B. Submerged Lands Act of 1953

For many decades following creation of the Union, it was assumed that the coastal states owned the submerged lands along their coasts, subject to the paramount federal navigational servitude and U.S. admiralty and treaty powers. In the 1930s, however, some federal officials urged that the Federal Government assert ownership of these lands.

After World War II, the Federal Government filed lawsuits against California, Louisiana and Texas, alleging that the United States owned the disputed strip. In a series of actions known as the *Submerged Lands Cases*,[12] the Federal Government was successful in the U.S. Supreme Court.

In 1947 the court, in *United States* v. *California*,[13] held:

> ". . . California is not the owner of the three-mile marginal belt along its coast and . . . the Federal Government rather than the state has paramount rights in and power over that belt, an incident to which is full dominion over the resources of the soil under that water area, including oil."[14]

Indeed, many commentators believe it was the expanding development of offshore oil production, coupled the coastal states' claim of ownership to minerals within the submerged lands, that precipitated the *Submerged Lands Cases*.

The Supreme Court's 1947 *California* opinion and other decisions involving Louisiana and Texas,[15] prompted Congress to enact the 1953 Submerged Lands Act,[16] which in effect nullifies major portions of the court's decisions. In part, the act:

1. Relinquishes to the coastal states U.S. title claims to lands beneath navigable waters within their respective state boundaries, including certain submerged lands; and
2. Defines the submerged lands confirmed to the coastal states in terms of state boundaries as they existed when the state became a member of the Union or as previously approved by Congress, but not extending seaward from the coastline of any state more than 1 marine league (3 geographical miles) in the Atlantic and Pacific Oceans or more than 3 marine leagues (9 geographical miles) in the Gulf of Mexico.

Despite the act, there has been considerable subsequent litigation between the United States and various coastal states, particularly as to the location of baselines for determining the areas covered by the statute, because of the value of these lands.

C. Outer Continental Shelf Lands Act of 1953

A few months after the Submerged Lands Act was passed, Congress approved the Outer Continental Shelf Lands Act.[17] This statute defines the term "outer Continental Shelf" (OCS) as "all submerged lands lying seaward and outside of the area beneath navigable waters as defined in . . . [the Submerged Lands Act] . . . and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control; . . ."[18]

Clearly, technological developments making offshore petroleum drilling more practicable and the Federal Government's desire to derive revenue from the OCS motivated passage of the Outer Continental Shelf Lands Act. The statute provides that the secretary of the interior shall administer the act's provisions relating to OCS mineral leases.

D. National Environmental Policy Act of 1969 (NEPA)

This is a broad statute[19] declaring "a national policy which will encourage productive and enjoyable harmony between man and his environment; . . . and [establishing] a Council on Environmental Quality."[20] The act is administered by the Environmental Protection Agency.

NEPA states that "it is the continuing responsibility of the Federal Government to use all practical means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources" so that, among other things, the nation may "achieve a blance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; . . ."[21]

The statute requires environmental impact statements by officials responsible for "major Federal actions significantly affecting the quality of the human environment;" the statements are to cover such items as "(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, [and] (iii) alternatives to the proposed action, . . ."[22]

E. Ports and Waterways Safety Act of 1972 (PWSA)

This act[23] was intended to help prevent oil pollution by granting the Coast Guard authority to control ship movements and to improve ship design, construction and operation.

Title I of PWSA[24] grants the Coast Guard sweeping power over the movements of ships in hazardous areas or when

there is adverse weather, poor visibility or heavy traffic. The Tank Vessel Act[25] was amended by Title II of PWSA, which deals with bulk cargo vessels carrying oil, inflammable or combustible liquids, or other hazardous substances. Title II directs the secretary of transportation to develop regulations for ship design, construction, alteration and repair, for the express purpose of protecting the marine environment.

F. Federal Water Pollution Control Act Amendments of 1972 (FWPCA)

The purpose of the Federal Water Pollution Control Act Amendments of 1972[26] is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[27]

Although FWPCA generally prohibits "the discharge of pollutants,"[28] it provides for a system of permits to be administered by the Corps of Engineers to control the discharge of dredged or fill materials into navigable waters.[29]

The act prohibits most discharges of oil in the coastal zone and imposes criminal penalties for a discharger's failure to notify the Federal Government of a spill. It also provides that the Federal Government will be liable when it removes oil, and requires the president to prepare and publish a national contingency plan for the removal of oil.

FWPCA jurisdiction is broad, including both onshore and offshore facilities as well as vessels, and extending oceanward to the U.S. contiguous zone as well as the territorial sea. (See Ref. 1.)

G. Marine Protection, Research and Sanctuaries Act of 1972

Under this statute,[30] also known as the Ocean Dumping Act, a permit is required when any material is to be dumped into the territorial sea and contiguous zone of the United States. (See Ref. 1.)

Dumping must not "unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities."[31] Permits for dumping dredged material are issued by the secretary of the Army, and for other material, by the administrator of the Environmental Protection Agency.

H. Coastal Zone Management Act of 1972 (CZMA)

By this act[32] the states are given an incentive (in the form of federal funds), although not required, to develop coastal zone management programs. The act was amended in 1976, raising the federal share in program development cost from 66 2/3 to 80 percent.[33] The CZMA, as amended, requires state programs to contain planning processes for energy facilities, shoreline erosion and beach access.

Coastal energy impact program funding is the main inducement to states to cooperate with the Federal Government in coastal energy development. Because energy self-sufficiency became a national goal after the 1973 oil embargo, the 1976 CZMA amendments were designed to encourage new or additional OCS oil and gas production.

The Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, Department of Commerce, administers CZMA. Although that office has issued regulations to implement CZMA, neither the act itself nor its administration indicates that the Federal Government has attempted to preempt the field of coastal zone management.

But CZMA imposes certain requirements on the states. For example, a state's management program must include a designation of the boundaries of the coastal zone subject to the program, an inventory of the areas of particular concern, broad guidelines on priority of uses in those areas, lists of permissible land and water uses, and controls over such permissible water uses.

In addition, CZMA requires that public hearings be held in developing the program, that the governor approve the program and that a single state agency receive and administer the federal grants for the program. On the other hand, CZMA does not direct the state to prefer certain uses in the coastal zone or what it should do in the zone.

I. Deepwater Port Act of 1974

Federal liability for oil discharges at or near deepwater ports is imposed by this act.[34] A "deepwater port" is defined, in part, as "any fixed or floating manmade structures other than a vessel, or any group of such structures, located beyond the territorial sea and off the coast of the United States and which are used or intended for use as a port or terminal for loading or unloading and further handling of oil for transportation to any State. . . ."[35]

The act prohibits oil discharges from a vessel within a safety zone established around a deepwater port, from a vessel that has received oil from another vessel at a deepwater port or from a deepwater port. It imposes penalties and liability for violations.[36]

A deepwater port licensee's liability is unlimited, under certain circumstances, if the discharge of oil from the port or a vessel moored there is due to gross negligence or willful misconduct. In other instances, a licensee's liability is limited to $50 million.

The liability of the owner and operator of a vessel is also unlimited, under certain circumstances, for cleanup costs and damages resulting from a discharge of oil from a vessel within a deepwater port's safety zone or from a vessel that has received oil from another vessel at such a port. If the discharge was not due to gross negligence or willful misconduct, the liability is limited to the lesser of $150 per gross ton or $20 million.

The act establishes a Deepwater Port Liability Fund to compensate injured parties when cleanup costs and damages from a discharge exceed these liability limits or when the port licensee's owner or operator are exonerated from liability. A fee of 2 cents per barrel, collected from the owner of the oil when it is loaded or unloaded at a deepwater port, finances this fund.

J. Fishery Conservation and Management Act of 1976 (FCMA)

In enacting FCMA,[37] Congress found that a national fishery conservation and management program is "necessary to prevent overfishing, to rebuild overfished stocks, to insure conservation, and to realize the full potential of the Nation's fishery resources."[38]

Under this statute a wide fishery conservation zone beyond the territorial sea was established. The limits of the zone are defined as follows:

> ". . . The inner boundary . . . is a line coterminous with the seaward boundary of each of the coastal States, and the outer boundary . . . is a line drawn in such a manner that each point on it is 200 nautical miles from

the baseline from which the territorial sea is measured."[39]

FCMA asserts the United States' exclusive fishery management authority over all fish, except for highly migratory species, within the 200-mile fishing zone.[40]

Even further seaward, the act claims U.S. authority over (1) "anadronomous species," or "species of fish which spawn in fresh and estuarine waters of the United States and which migrate to ocean waters," and (2) "Continental Shelf fishery resources," defined as certain species of coral, crab, abalone, sponges and other organisms, in "the submarine areas . . . to a depth of 200 meters or, beyond that limit, to where the depth of superjacent waters admits of the exploitation of the natural resources of such areas."[41]

The law provides that fishing by a non-U.S. vessel will not be authorized within the fishery conservation zone or for anadronomous species or Continental Shelf fishery resources beyond that zone except under international fishery agreements and permits.[42]

FCMA mandates the creation of eight Regional Fishery Management Councils and requires them to prepare fishery management plans, which must be consistent with the national standards for fishery conservation and management stated in the act.[43]

KEY INTERNATIONAL AGREEMENTS

Under the Constitution's treaty power, the United States has entered into a number of international agreements affecting the coastal zone. The following summarizes several of these agreements.

A. Convention on the Continental Shelf

This convention,[44] accomplished at Geneva in 1958, was the first international agreement on rules for the exploration and exploitation of natural resources in those areas defined as the continental shelf. The convention went in force for the United States on June 10, 1964.

The term "continental shelf" is defined broadly as "*(a)* the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; *(b)* to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands."

The convention gives the coastal nation exclusive sovereign rights over the continental shelf, subject to certain limitations to protect navigation, fishing and the conservation of living resources of the sea, "for the purpose of exploring it and exploiting its natural resources." This country exercises those rights under the Outer Continental Shelf Lands Act summarized above.

B. Convention on the Territorial Sea and the Contiguous Zone

Under this convention,[45] also produced at Geneva in 1958 and effective as to the United States on September 10, 1964, a nation's sovereignty "extends, beyond its land territory and its internal waters, to a belt of sea adjacent to its coast, described as the territorial sea." For the convention's definition of the term "territorial sea," (see Ref. 1).

The convention provides that "the method of straight baselines joining appropriate points" along a "deeply indented" coast line may be used in determining the breadth of the territorial sea, but restricts its use to certain geographical situations. The convention specifies that "the normal baseline . . . is the lowwater line . . . as marked on large-scale charts officially recognized by the coastal" nation.

In general, subject to qualifications, the United States has claimed a 3-mile territorial sea, although now asserting a 200-mile fishery conservation zone.

For the convention's definition of the term "contiguous zone," (see Ref. 1).

CONCLUSION

The Federal Government—through statutes enacted by Congress, decisions by the U.S. Supreme Court and other federal courts, international agreements, and rules and regulations promulgated by administrative agencies—is increasingly involved in the development and implementation of the law of the coast. Awareness of this expanding body of federal law is essential to professionals from various disciplines involved in coastal zone matters.

REFERENCES

1. The term *coastal zone* as used in this article generally refers to the strip of tidelands and submerged lands along the coast of the United States and the adjacent uplands. See the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 14. International law, a discussion of which is beyond the scope of this article, defines various oceanic zones by terms that are used in some of the federal laws summarized herein. The Convention on the Territorial Sea and the Contiguous Zone, 15 U.S.T. 1606, T.I.A.S. 5639, defines the *territorial sea* as "a belt of sea adjacent to [a coastal nation's] coast," without specifying the breadth of the belt. The Convention on the High Seas, 13 U.S.T. 2312, T.I.A.S.5200, defines *high seas* as "all parts of the sea that are not included in the territorial sea or in the internal waters" of a coastal nation. The Convention on the Territorial Sea and the Contiguous Zone, *supra*, defines the *contiguous zone* as a portion of the high seas which "may not extend beyond twelve miles from the baseline from which the breadth of the territorial sea is measured."
2. COMMISSION ON MARINE SCIENCE, Engineering and Resources, *Report of the Panel on Management and Development of the Coastal Zone* (1969).
3. U.S. Const., art. I, §8, cl. 3.
4. 22 U.S. (9 Wheat.) 1 (1824).
5. U.S. Const., art. VI, cl. 2.
6. U.S. Const., art. III, §2.
7. 1 Stat. 76; codified, as modified, at 28 U.S.C. §1333.
8. U.S. Const., art. II, §2, cl. 2.
9. 30 Stat. 1151, 33 U.S.C. §401 *et seq.*
10. *Wisconsin* v. *Illinois*, 278 U.S. 367 (1929).
11. 430 F. 2d 199 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).
12. These cases are sometimes erroneously referred to as the *Tidelands Cases*, but did not involve questions of the title to the tidelands, *i.e.*, lands between the lines of mean high and mean low water.
13. 332 U.S. 19 and 804 (1947).
14. 332 U.S. at 38–39.
15. *United States* v. *Louisiana*, 339 U.S. 699 (1950); *United States* v. *Texas*, 339 U.S. 707 (1950).
16. 67 Stat. 29, 43 U.S.C. §1301 *et seq.*
17. 67 Stat. 462, 43 U.S.C. §1331 *et seq.*
18. 43 U.S.C. §1331(a).

19. 83 Stat. 852, 42 U.S.C. §4321 *et seq.*
20. 42 U.S.C. §4321.
21. 42 U.S.C. §4331(b).
22. 42 U.S.C. §4332.
23. 86 Stat. 424, 33 U.S.C. §1221 *et seq.*
24. *Ibid.*
25. 46 U.S.C. §391a *et seq.*
26. 86 Stat. 816, 33 U.S.C. §1251 *et seq.*
27. 33 U.S.C. §1251(a).
28. 33 U.S.C. §1311(a).
29. 33 U.S.C. §1344.
30. 86 Stat. 1052, 33 U.S.C. §1401 *et seq.*
31. 33 U.S.C. §1412(a).
32. 86 Stat. 1280, 16 U.S.C. §1451 *et seq.*
33. 86 Stat. 1015, 16 U.S.C. §1454.
34. 88 Stat. 2126, 33 U.S.C. §1501 *et seq.*
35. 33 U.S.C. §1502 (10).
36. 33 U.S.C. §1517.
37. 90 Stat. 331, 16 U.S.C. 1801 *et seq.*
38. 16 U.S.C. §1801(a).
39. 16 U.S.C. §1811.
40. 16 U.S.C. §§1801(1), 1811, 1813.
41. 16 U.S.C. §§1801(b), 1802(1), (3), (4), 1812, 1813.
42. 16 U.S.C. §1821.
43. 16 U.S.C. §§1851–1855.
44. 15 U.S.T. 471, T.I.A.S. 5578.
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The Law of the Coast in a Clamshell*

Part III: The California Approach

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California's Coastline, stretching almost 1,100 miles along the Pacific Ocean, reflects the diversity of the nation's most populous state. The contrasts are vivid: groves of giant redwoods along the damp north coast and sandy beaches in the dry, sunny southern part of the state, the highly urbanized seashore of Los Angeles County and sheep-grazing pastures overlooking the ocean far from any freeways.

Similarly, there is a wide variety in California's approach to different aspects of the law of the coast. Illustrative of this is the contrast between the state's pace-setting legal framework for coastal zone land-use management and the apparent perpetuation of an outmoded, unscientific legal standard for demarcation of boundaries between privately owned uplands and public tidelands.

Since 1972, when 55 percent of the voters approved Proposition 20 and created the California Coastal Zone Conservation Commissions,[1] the Golden State has been in the forefront of coastal zone land-use planning. In 1975 these commissions issued a 443-page California Coastal Plan, replete with colored maps and findings and policies covering topics from natural habitats to energy facility siting.

During the past eight years, these commissions and their successors under the California Coastal Act of 1976[2] have processed about 50,000 permit applications for development projects within the coastal zone under detailed statutory, regulatory and judicial guidelines.

By contrast, it appears that California law persists in taking an imprecise, antiquated approach to delineating the legal boundary between uplands and tidelands. The unscientific views of Sir Matthew Hale (1609-1676), who originated the early English common-law notion that "nepe" or "neap" tides should be considered "ordinary tides," still cast a shadow of uncertainty over tidal boundary demarcation in the state.[3]

TITLE TO LANDS WITHIN THE COASTAL ZONE

For convenience, California's coastal lands may be divided into uplands, tidelands and submerged lands. This discussion includes lands underlying and adjoining San Francisco Bay although such lands are not within the "coastal zone" as that term is defined by the California Coastal Act of 1976.[4]

A. Uplands

Most of the uplands along the state's coast are privately held, but governmental entitites own a surprisingly large portion of these littoral lands.[5] The source of title to a particular parcel of uplands may be significant in determining its waterward boundary.

Before statehood, most coastal uplands in the southern and central parts of the state, from the Mexican border to Sonoma County, about 75 miles north of San Francisco, were included in privately owned ranchos conveyed by the Spanish and Mexican governments during the early 19th century. Under the 1848 Treaty of Guadalupe Hidalgo,[6] ending the Mexican War, preexisting private land titles were protected. Later, the United States Board of Land Commissioners issued confirmatory rancho patents upon presentation of evidence that the ranchos had been validly granted.

Along much of the Northern California coast and in limited areas elsewhere, the Federal Government is the original source of title to uplands.

B. Tidelands

California became the owner of the vast majority of the tidelands within its borders when it was admitted to the Union on September 9, 1850.[7] The reason is that California enjoys the same sovereignty and jurisdiction over its tidelands as the original coastal states under a legal principle called the equal-footing doctrine.[8]

Most of California's tidelands still are owned by the state or the Legislature's public grantees in trust. The State Lands Commission has jurisdiction over the state-owned tidelands.[9] About 70 cities, counties and other entities such as port and harbor districts administer granted tidelands.

Starting in 1851, some tidelands were sold to private parties under acts limited to specific geographical areas, such as portions of San Francisco Bay.[10] Beginning in 1861, sales of tidelands to private parties were made under acts of general statewide applicability.[11] However, a provision in the 1879 California Constitution[12] prohibited sales within 2 miles of incorporated cities and towns,

This is the third in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. This article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of California concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or of any other agency of the State of California.

and in 1909 a statute ended all sales of tidelands to private parties.[13]

C. Submerged Lands

For many years, California assumed it owned the lands within the 3-geographical-mile-wide strip seaward of its tidelands. But in 1947 the U.S. Supreme Court upheld the United States' assertion that its rights to submerged lands were paramount.[14] Congress reversed that decision by enacting the Submerged Lands Act of 1953,[15] which confirms California's title to the 3-mile-wide strip.

Although the state owns most of these submerged lands, some of them have been granted to local governmental entities, and others, especially in San Francisco Bay, have been sold into private ownership.[16]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Generally, California follows the English common-law rule that the ordinary high-water mark,[17] instead of the low-water line, is the legal boundary between privately owned uplands and public lands. However, because of case law referring to the so-called "California rule" that only the "neap tides"[18] are used in determining the boundary, the original source of title to the uplands may be an important factor in boundary demarcation in any given area.

If, for example, the Federal Government conveyed the uplands in question, it may be held under the U. S. Supreme Court's 1935 decision in *Borax, Ltd. v. City of Los Angeles*[19] that the boundary is to be determined by using the mean of *all* the high waters over an 18.6-year tidal cycle.

On the other hand, if the land title deraigns from a Spanish or Mexican rancho granted before the United States acquired the area, it may be contended that a tidal datum derived by averaging *only* the "high neap tides" is to be used in ascertaining the location of the ordinary high-water mark.[20]

Both the federal *Borax* rule and the purported California "neap tide" rule stem from judicial interpretations of the English common-law legal term "ordinary high-water mark." Even before California was admitted to the Union, its Legislature declared that "the Common Law of England, . . . shall be the rule of decision in all the Courts of this State."[21]

In 1872 the California Civil Code was enacted, providing in part:

> "Except where the grant under which the land is held indicates a different intent, the owner of the upland, when it borders on tidewater, takes to *ordinary high-water mark*; . . ."[22]

That statute and several others using the term "ordinary high-water mark"[23] are still in the statute books. But some recent statutes do not use the term. For example, in defining the coastal zone, the California Coastal Act of 1976 refers to "the *mean high tide line* of the sea."[24] And in various modern decisions, the state's Supreme Court has referred to the "line of mean high tide" in defining tidelands.[25]

Nevertheless, one recent appellate court decision and several legal writers assert that California's upland/tideland boundary is determined by using only the "neap tides."[26]

How did California's purported "neap tide" rule originate? The first reported California Supreme Court decision referring to the "neap tides" was *Teschemacher v. Thompson* in 1861.[27] It was written by Justice Stephen Field, who later served on the United States Supreme Court, where he authored the landmark opinion on the common-law public trust doctrine, *Illinois Central Railroad v. Illinois*.[28]

Justice Field's *Teschemacher* language may be traced to the unscientific 17th-century writings of Sir Matthew Hale, who had equated "nepe" or "neap" tide with "ordinary tides" for property boundary purposes. Justice Field, in language unnecessary for the decision (dictum) stated:

> ". . . The limit of the monthly Spring tides is, in one sense, the usual high water mark; for, as often as those tides occur, to that limit the flow extends. But it is not the limit to which we refer when we speak of 'usual' or 'ordinary' high water mark. By that designation we mean the limit reached by the neap tides; that is, those tides which happen between the full and change of the moon, twice in every twenty-four hours."[29]

Justice Field's view of "neap tides" differs from the generally accepted scientific definition. Technically, neap tides are tides of decreased or minimum range occurring twice during each lunar month as a result of the moon being in quadrature.[30]

Scientific and legal scholars have criticized the *Teschemacher* "neap tide" language. In particular, the respected Aaron L. Shalowitz, an engineer/lawyer for the National Ocean Survey's predecessor agency for almost half a century, cited *Teschemacher* as an example of an early decision containing "imperfections which suggest that appropriate scientific data were not . . . made available to the court," adding:

> ". . . [T]he court . . . uses the word 'neap' . . . in some ambiguous sense to desigante a plurality of tides between full and change . . . The court apparently thought . . . that all tides are either spring or neap; that the springs occur but once a month; and that all other tides are neap tides and differ but little among themselves, making them the 'usual' or 'ordinary' tides. The most that can be said for the decision is that the court was giving its own definition of neap tides as including all the tides that occur between the full and change of the moon, excepting the spring tides. . . ."[31]

An analysis of California decisions after *Teschemacher* discloses that the term "neap tides" has been used in a nontechnical manner in most of the cases[32] to denote "usual" and/or "ordinary" tides rather than in the scientific sense of tides of minimum range occurring as a result of quadrature.

Unfortunately, the latest decision by a California appellate court containing a detailed discussion of the method of determining the upland/tideland boundary compounds the confusion. In 1966 the Court of Appeal, California's intermediate appellate court, decided *People v. Wm. Kent Estate Co.*,[33] holding that the boundary is to be determined by using the 19-year mean of the "high neap tides." The court apparently attempted to de-

fine "neap tides" in a technical manner; at best, its definition is quasi-technical. Its opinion defines "neap tides" as those occurring *when* the moon is in its first and third quarters,"[34] overlooking the fact that there is usually a lag of a day or two between quadrature and the minimum or neap range.[35] Although further appellate court examination was sought after a retrial, the appeal was found to be moot and the 1966 *Kent* decision has not been overruled.

B. Legal Effect of Physical Changes in the Location of the Shoreline

The principle that accretion and erosion—gradual, imperceptible changes in the shoreline—result in a movement of the legal boundary between uplands and tidelands is recognized in California,[36] with one important qualification: the changes must be natural. In this regard, California differs from almost all other jurisdictions.

If the changes is caused directly by an artificial condition—such as the dumping of fill—the boundary is permanently fixed as existed in its last natural position. More difficult questions arise when the change is indirectly due to an artificial condition, such as a breakwater or groin.

The Santa Monica breakwater (Fig. 1) has spawned considerable litigation about the legal effect of physical changes in the location of the shoreline. Built in 1933-35, this detached breakwater was intended to shelter a small-craft harbor. A large amount of sand gradually accreted along that portion of the shore near the breakwater, because it interrupted the littoral current; erosion occurred downcoast. Based on a trial court's finding that these changes were due entirely to the breakwater, an appellate court held that artificially accreted lands belong to the owner of the tidelands—the state or its legislative public grantee—instead of the private owner of the uplands.[37]

To avoid expensive and time-consuming litigation when artificial shoreline changes have occurred, the state is authorized by statute [38] to enter into boundary line agreements with upland owners. Case law also upholds a legislative public grantee's right to do so.[39]

An unresolved problem in California, as elsewhere, is the legal effect of natural seasonal and other short-term changes in the shoreline's location. In the same *Kent* decision that complicated the so-called "neap tide" rule, the appellate court failed to recognize that such cyclical changes in the width of sandy beaches are typical along the state's coast. The court inferred that a Marin County beach was "some 80 feet wider in summer than in winter," and stated: "If these changes be constant, in offsetting pairs occuring annually, they can hardly be gradual and imperceptible, and thus cannot meet the definitions of natural accretion and deliction *[sic]*."[40]

When the *Kent* case was retired, the unrefuted evidence showed that the seasonal changes were even more substantial. The extreme range of horizontal movement of the contour of mean high water during 21 surveys at various times of the year was 161 feet. The seasonal changes in the width of the beach were not uniform from season to season, although the beach was consistently wider in the late summer or early fall and narrower during the winter. In addition, there were short-term variations in the width of the beach superimposed on the seasonal changes. Dismissal of an appeal following this retrial prevented potential and needed judicial recognition of the contemporary scientific knowledge about such seasonal and short-term changes.[41]

CALIFORNIA'S PUBLIC TRUST DOCTRINE

A. Scope of the Trust Doctrine

California's courts have applied and greatly expanded the common-law public trust doctrine, the concept that the public has the right to use tidal waters irrespective of who owns the underlying lands.

The California Supreme Court in *Marks v. Whitney*[42] in 1971 broadly defined the contemporary scope of the public trust easement so it encompasses far more than the traditional uses of commerce, navigation and fisheries. The court held that the trust also includes "general recreation purposes" and "the preservation of [tidelands] in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environment which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area."[43]

B. Lands Subject to the Trust Easement

In California, the public trust easement applies to most but all tide and submerge lands. Unless the trust has been validly terminated, such lands owned by the state and its legislative public grantees are subject to the trust.

Under the landmark 1913 decision of *People v. California Fish Co.*,[44] privately owned tidelands sold and patented by the state under the general statutes of statewide applicability are also subject to the trust.

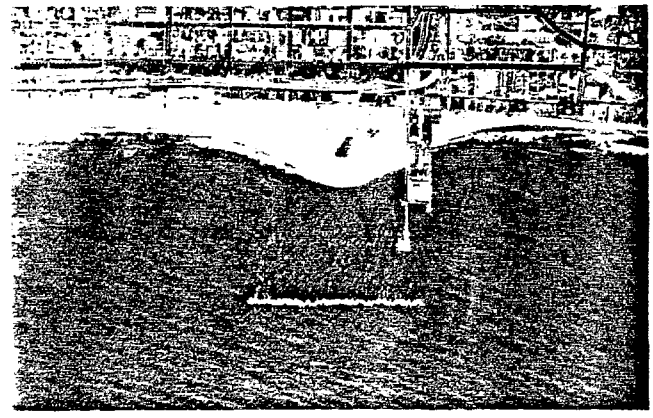

Fig. 1. The Santa Monica breakwater has had a dramatic effect on the nearby shoreline. The beach in the lee of the breakwater and upcoast from it (left) has widened substantially since its construction, while the beach downcoast has eroded. Under California law, artifically accreted lands belong to the state or its local public grantee of the tidelands. (Photo from Hydraulic Laboratory, University of California, Berkeley.)

However, until recently it was uncertain whether all San Francisco Bay tide and submerged lands that had been sold into private ownership by the Board of the Tide Land Commissioners were free of the public trust. A 1915 decision[45] indicated that these lands were no longer subject to the trust. But in 1980 the state's Supreme court reversed that ruling in a suit involving lands along the Berkeley waterfront that has been sold almost 90 years ago but remained unfilled. The court held that these lands, as distinguished from lands that has been filled and improved, are still subject to the public trust.[46]

C. Termination of the Trust Easement

California's public trust easement may be lawfully terminated by the Legislature in certain limited instances if specified criteria are satisfied.

In determining whether the public trust has been terminated, the courts look for a clearly expressed or necessarily implied legislative intent to free any tide and submerged lands from the trust and carefully review other governmental actions claimed to have resulted in a lifting of the trust.[47]

The California Supreme Court held in *City of Long Beach* v. *Mansell* in 1970:

> ". . . the state in its proper administration of the trust may find it necessary or advisable to cut off certain tidelands from water access and render them useless for trust purposes. In such a case the state through the Legislature may find and determine that such lands are no longer useful for trust purposes and free them from the trust."[48]

A private owner of tidelands sold under the general statutes of statewide applicability cannot extinguish the public trust simply by filling and developing his property. As the state's Supreme Court said in 1971: "Reclamation with or without prior authorization from the state does not ipso facto terminate the public trust. . . ."[49]

PUBLIC ACCESS RIGHTS

The 1879 California Constitution contains this provision about public access to and use of tidelands and the waters covering them:

> "No individual, partnership, or corporation, claiming or possessing the frontage or tidal lands of a harbor, bay, inlet, estuary, or other navigable water in this State, shall be permitted to exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water;. . ."[50]

The California Court cited this constitutional provision and a number of statutes in its controversial 1970 *Gion-Dietz* public access to the coast."[51] In *Gion-Dietz*, the court held that when the general public has used a beach or an accessway to the shoreline as if it were public property for at least five years with the owner's acquiescence, the beach or accessway may be found to be impliedly dedicated to the public. Although the Legislature subsequently curtailed the impact of *Gion-Dietz*,[52] the doctrine of implied dedication still is an important means of assuring public access rights in California.

The California Coastal Commission and the State Coastal Conservancy are responsible for preparing a comprehensive coastal access program. In a joint staff report issued in 1980, the two agencies detailed their standards and recommendations for coastal access. However, as of the fall of 1980, about 1,000 new accessways that had resulted from Coastal Commission permit actions could not be opened for public use because no governmental entity or private association had assumed responsibility for maintenance and liability.

PRIVATE LITTORAL RIGHTS

California case law has often limited the littoral rights of private owners of uplands. For example, although a private owner has the right of access to the adjoining tide and submerged lands as against other private parties, the state or its local public entity grantee may cut off that access by filling those lands in a manner consistent with the public trust.[53]

In one case, the owner of a beach resort, whose property was denuded of its sandy accretions by construction of the Santa Barbara breakwater, was denied compensation. The state's Supreme Court held that the duration of the resort owner's "littoral right to sandy water" was always subject to termination by the state, and that "[t]he withdrawal of the sandy accretions, . . . was an incidental consequence of the state's use of the public domain for a public interest that was at all times superior to private littoral rights."[54]

Under California law, a private littoral owner has no right to wharf out beyond his own lands to navigable waters without the permission of the state or the appropriate governmental entity.[55]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

State-owned tide and submerged lands may be leased by the State Lands Commission.[56] Its predecessor agency began leasing these lands for mineral exploration and extraction in the 1920s. Such leases have been upheld by the courts as consistent with the public trust.

Local governmental grantees of tide and submerged lands have general leasing powers[58] as well as the authority spelled out in their particular statutory grants.

B. Regulatory Functions

Piecemeal filling of San Francisco Bay prompted creation in 1965 of the San Francisco Bay Conservation and Development Commission,[59] a pioneering effort at regional regulation of the use of tidal waters and the lands beneath them. This agency, which prepared a comprehensive bay plan, issues permits for development in the bay and along its shore.

Along the open coast, and in other bays, harbors and estuaries, the California Coastal Commission and six regional coastal commissions exercise similar regulatory functions.[60] Although the statewide commission will continue, the regional commissions are scheduled for ter-

mination on June 30, 1981. California's nearly 70 local coastal jurisdictions are in the process of preparing local coastal plans, and will assume the regional commissions' permitting powers.

REFERENCES

1. Proposition 20 was put on the November 1972 ballot through the initiative process (*i.e.*, voters' petition) after the California Legislature had failed to enact any coastline protection bill. When Proposition 20 was passed, about 85 percent of the state's population of 20 million lived within 30 miles of the Pacific Ocean. Coastal regulation was fragmented under 15 counties, 45 cities, 42 state units and 70 federal agencies. Interestingly, the passage of Proposition 20 came within two weeks of the final approval of the federal Coastal Zone Management Act of 1972. By Proposition 20, the California Coastal Zone Conservation Act (Cal. Pub. Resources Code § 27000 *et seq.*) was adopted, creating a temporary California Coastal Zone Conservation Commission and six regional commissions. See generally S. SCOTT, *Governing California's Coast*, Institute of Government Studies, University of California (1975).
2. Before the expiration of the 1972 act, the Legislature assured the continuation of a state coastal zone land-use management program by approving the California Coastal Act of 1976 (Cal. Pub. Resources Code § 30000 *et seq.*), establishing the present California Coastal Commission, which is intended to be a permanent agency, and the six regional commissions, which are scheduled to relinquish their permit-processing powers to coastal counties and cities by June 30, 1981, after local coastal plans are prepared and approved.
3. For a brief discussion of Lord Hale's views and the subsequent English and United State Supreme Court decisions defining the upland/tideland boundary, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18. It is the opinion of some authorities that California uses only the "neap tides" in determining tidal boundaries. For example, a respected title company lawyer asserted in the *California State Bar Journal* in 1972: "The 'ordinary high water mark' under California law, . . . has repeatedly been held to be the projection of the plane of the mean of all the neap high tides upon the shore . . . ." T. McKNIGHT, "Title to Lands in the Coastal Zone: Their Complexities and Impact on Real Estate Transactions," 47 Cal. State Bar J. 408, 463 (1972).
4. The California Coastal Act of 1976 defines the coastal zone, in part, as: ". . . that land and water area of the State of California from the Oregon border to the border of the Republic of Mexico, . . . extending seaward to the state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the major ridgeline paralleling the sea or five miles from the mean high tide line . . ., whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards . . . ." Cal. Pub. Resources Code § 30103. The definition specifically excludes the area under the jurisdiction of the San Francisco Bay Conservation and Development Commission.
5. According to a State of California study, governmental entities own 408 miles of the state's 1,067 miles of shoreline, excluding harbors and the Channel Islands. Cal. Dept. of Parks and Recreation, *California Coastline Preservation and Recreation Plan* 62 (1971)
6. 9 Stat. 922, T.S. No. 207.
7. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10, 15, 16, (1935); *Weber* v. *Harbor Commissioners*, 85 U.S. (18 Wall.) 57, 65, 66 (1873); Act for the Admission of California Into the Union, 9 Stat. 452. However, lands under tidal waters granted to private parties by Mexico before the cession to the United States of the territory that became the State of California did not pass to the state upon its admission. *Knight* v. *United States Land Assn.*, 142 U.S. 161, 183 (1891).
8. For a brief discussion of the equal-footing doctrine, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
9. Cal. Pub. Resources Code § 6301.
10. See, *e.g.*, Cal. Stats. 1851, ch. 41, p. 307; Cal. Stats. 1851, ch. 44, p. 311; Cal. Stats. 1867-68, ch. 543, p. 716; Cal. Stats. 1869-70, ch. 388, p. 541.
11. See, *e.g.*, Cal. Stats. 1861, ch. 352, p. 355; Cal. Stats. 1861, ch. 356, p. 363 (confirming prior sales of "reclaimable" tidelands under acts providing for sales of swamp and overflow lands); Cal. Stats. 1867-68, ch. 415, p. 507. Under these and similar statutes (*e.g.*, former Cal. Pol. Code §§ 3440-3488), the state surveyor general issued patents to tidelands sold by the state to private parties.
12. Cal. Const., art. X, § 3 (formerly art. XV, §3).
13. Cal. Pub. Resources Code § 7991 (formerly Cal. Pol. Code § 3443a).
14. *United States* v. *California*, 322 U.S. 19, 38-39 (1947).
15. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
16. See, *e.g.*, Cal. Stats. 1867-68, ch. 543, p. 716; Cal. Stats. 1869-70, ch. 388, p. 541.
17. For a brief discussion of the English common-law rule, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 17.
18. See, *e.g.*, *People* v. *Wm. Kent Estate Co.*, 242 Cal. App. 2d 156, 161, 51 Cal. Rptr. 215 (1966).
19. 296 U.S. 10 (1935). In *Borax*, involving a federal upland patent in what is now Los Angeles Harbor, the U.S. Supreme Court held that "/t/he question as to the extent of this federal grant, that is, as to the limit of the land conveyed, or the boundary between the upland and the tideland, is necessarily a federal question." *Id.* at 22. The decision mentions nothing about accretion or erosion after the 1881 federal patent, and it may be concluded that the court applied federal law to determine the *initial* waterward boundary of the upland parcel. The principle that state law controls as to the legal effect of *subsequent* physical changes in the westward boundary of lands conveyed under a federal patent was recenly reaffirmed in a Supreme Court case involving a nontidal stretch of a navigable river. *State Land Board* v. *Corvallis Sand & Gravel Co.*, 429 U.S. 363, 370-371 (1977). But the court did not overrule language in *Hughes* v. *Washington*, 389 U.S. 290, 293 (1967), a case involving subsequent shoreline changes in oceanfront property conveyed by the United States before Washington's statehood, holding that federal law instead of state law governs the effect of such changes on legal boundaries.
20. Although the federal government issued confirmatory patents to these ranchos after the Treaty of Guadalupe Hidalgo, state law rather than federal law controls the waterward boundaries of prior Mexican grants. *Los Angeles Milling Co.* v. *Los Angeles*, 217 U.S. 217, 227-234 (1910). California does not follow the civil-law rule that the highest wash of the winter waves is the waterward boundary of these rancho lands even though many upland parcels along the state's coast may be traced to such prior grants. California thus differs from Texas, in which the line mean higher high water is the legal boundary when the original source of upland title is a prior Spanish of Mexican grant. See the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 18 (text accompanying note 35).
21. Cal. Stats. 1850, ch. 95, p. 219.
22. Cal. Civ. Code § 830 (emphasis added).
23. See, *e.g.*, Cal. Cic. Code § 670; Cal. Code Civ. Proc. § 2077; Cal. Pub. Resources Code § 6357.
24. Cal. Pub. Resources Code § 30103 (emphasis added).
25. See, *e.g.*, *City of Berkeley* v. *Superior Court*, 26 Cal. 3d 515, 162 Cal. Rptr. 327, 606, P. 2d 362 (1980), *cert. denied*, 101 S. Ct. 119 (1980); *Marks* v. *Whitney*, 6 Cal. 3d 251, 257-258, 98 Cal. Rptr. 790, 491 P. 2d 374 (1971); *City of Long Beach* v. *Mansell*, 3 Cal. 3d 462, 478 n. 13, 91 Cal. Rptr. 23, 476 P. 2d 423 (1970).
26. *People* v. *Wm. Kent Estate Co.*, *supra*, 242 Cal. App. 2d 156, 161, 51 Cal. Rptr. 215; T. McKNIGHT, *supra*, note 3, at 463; 52 Cal. Jur. 2d, Waters § 794, pp. 439-441 (1959).
27. 18 Cal. 11 (1861).
28. 146 U.S. 387 (1892).
29. 18 Cal. at 21.
30. P. SCHUREMAN, *Tide and Current Glossary* 14, National Ocean Survey (1975 rev. ed.)
31. 1 A. SHALOWITZ, *Shore and Sea Boundaries* 93 (1962).
32. See, *e.g.*, *Otey* v. *Carmel Sanitary Dist.*, 211 Cal. 310, 313, 26 P. 2d 308 (1933); *Oakland* v. *E.K. Wood Lumber Co.*, 211 Cal. 16, 22-23, 292 P. 1076 (1930); *F.A. Hihn Co.* v. *City of Santa Cruz*, 170 Cal. 436, 442, 150 P. 62 (1915).
33. 242 Cal. App. 2d 156, 51 Cal. Rptr. 215 (1966).
34. 242 Cal. App. 2d at 161 (emphasis added).
35. Some courts have recognized this fact. For example, in discussing neap tides, the U.S. Supreme court in *Borax, Ltd.* v. *Los Angeles*, *supra*, 296 U.S. at 23 n. 2 quoted a publication of the Coast and Geodetic Survey as follows: " 'There is usually an interval of one or two days between full moon or new moon and the greatest range of the tide. And *a like interval is found between the first and third quarters of the moon and the smallest tides.*' " (Emphasis added.)

36. See, *e.g.*, *City of Oakland* v. *Buteau*, 180 Cal. 83, 87, 179 P. 170 (1919); *Strand Improvement Co.* v. *Long Beach*, 173 Cal. 765, 772-773, 161 P. 975 (1916).
37. *Carpenter* v. *City of Santa Monica*, 63 Cal. App. 2d 772, 783-794, 147 P. 2d 964 (1944); see also *City of Los Angeles* v. *Anderson*, 206 Cal. 662, 666-667, 275 P. 789 (1929); *People* v. *Hecker*, 179 Cal. App. 2d 823, 832-835, 4 Cal. Rptr. 334 (1960); *L.A. Athletic Club* v. *City of Santa Monica*, 63 Cal. App. 2d 795, 799, 147 P. 2d 976 (1944).
38. Cal. Pub. Resources Code § 6357.
39. *City of Long Beach* v. *Mansell*, 3 Cal. 3d 462, 91 Cal. Rptr. 23, 476, P. 2d 423 (1970); *Muchenberger* v. *City of Santa Monica*, 206 Cal. 635, 642-643, 275 P. 803 (1929).
40. 242 Cal. App. 2d at 160. The court incorrectly used the term "deliction"; it may have meant "reliction," the process by which land that had been covered by water becomes uncovered by the imperceptible recession of the water, but probably meant "erosion."
41. For an excellent discussion of the scientific and engineering principles involved in these fluctuations of the shoreline, see J.W. JOHNSON, "The Significance of Seasonal Beach Changes in Tidal Boundaries," *Shore and Beach*, Vol. 39 No. 1, April 1971, pp. 25-31.
42. 6 Cal. 3d 251, 98 Cal. Rptr. 790, 491 P. 2d 374 (1971).
43. 6 Cal. 3d at 259-260.
44. 166 Cal. 576, 584-585, 589, 592-594, 597-599, 138 P. 79 (1913).
45. *Knudson* v. *Kearney*, 171 Cal. 250, 152, P. 541 (1915).
46. *City of Berkeley* v. *Superior Court*, *supra*, 26 Cal. 3d 515, 162 Cal. Rptr. 327, 606 P. 2d 362, *cert. denied*, 101 S. Ct. 119.
47. *People* v. *California Fish Co.*, *supra*, 166 Cal. at 597.
48. 3 Cal. 3d at 482.
49. *Marks* v. *Whitney*, *supra*, 6 Cal. 3d at 261.
50. Cal. Const., art. X, § 4 (formerly art. XV, § 2).
51. *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal. 3d 29, 84 Cal. Rptr. 152, 465, P. 2d 50 (1970).
52. Cal. Stat. 1971, ch. 941, p. 1845, amending Cal. Civ. Code § 813 and adding Cal. Civ. Code § 1009. But see Cal. Gov't Code §§ 66477.2, 66478.11 (express dedication of access to coast in coastal subdivisions).
53. See, *e.g.*, *City of Newport Beach* v. *Fager*, 39 Cal. App. 2d 23, 28, 102 P. 2d 438 (1940). One of the most potentially far-reaching decisions is *Colberg, Inc.* v. *State of California ex rel. Dept. Pub. Wks.*, 67 Cal. 2d 408, 421, 425-426, Cal. Rptr. 401, 432, P. 2d 3 (1967). In that case, the California Supreme Court rejected the claims by shipyard owners that they were entitled to compensation for curtailment of their access to the Stockton Deep Water Ship Channel by construction of two low-level freeway bridges spanning a connecting navigable waterway next to their lands.
54. *Miramar Co.* v. *City of Santa Barbara*, 23 Cal. 2d 170, 143 P. 2d 1 (1943).
55. See, *e.g.*, *Dana* v. *Jackson Street Wharf Co.*, 31 Cal. 118, 120, 121 (1866); *City of Oakland* v. *Hogan*, 41 Cal. App. 2d 333, 348-351, 106 P. 2d 987 (1940). However, in *Marks* v. *Whitney*, *supra*, 6 Cal. 2d at 263, wharfing out is listed as a littoral right of the upland owner. This statement, unsupported by any citation, seems to be incorrect under California law.
56. Cal. Pub. Resources Code §§ 6301 *et seq.*, 6871 *et seq.*, 6900.
57. *Boone* v. *Kingsbury*, 206 Cal. 148, 183, 189, 192, 273 P. 797 (1928).
58. Cal. Pub. Resources Code § 6305.
59. Cal. Gov't Code § 66600 *et seq.*
60. The present commissions operate under the California Coastal Act of 1976, Cal. Pub. Resources Code § 30000 *et seq.* This act superseded the California Coastal Zone Conservation Act, Cal. Pub. Resources Code § 27000 *et seq.*, which had been adopted by initiative (Proposition 20) on November 7, 1972, and expired January 1, 1977.

The Law of the Coast in a Clamshell*

Part IV: The Florida Approach

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From April 1513, when the Spanish explorer Juan Ponce de Leon landed near present-day St. Augustine, to April 1981, when the space shuttle *Columbia* blasted off from Cape Canaveral, Florida's history has been inextricably bound up with its coast.

Jutting like a giant finger between the Atlantic Ocean and the Gulf of Mexico, Florida boasts the second longest coastline of any state — almost 1,200 miles, not counting bays and sounds.[1] Its beaches and coastal waters lure almost all of the 32 million tourists who visit the Sunshine State annually.[2]

Florida's 1968 Constitution recognizes the coast's vital role, declaring that title to beaches below the mean high-water line is in the state in trust for all the people.[3] Reflecting the Legislature's concern, more than 20 chapters of the codified Florida Statutes relate to various legal aspects of the coastal zone. It is these statutes that constitute the heart of the proposed Florida Coastal Management Program, drawn up under the Florida Coastal Management Act of 1978[4] and now awaiting federal approval.[5]

While Florida may have taken longer to develop its Coastal Management Program than many states, it has been a pioneer in enacting wide-ranging coastal legislation, such as statutes providing for the establishment of coastal construction setback lines,[6] coastal construction control lines[7] and erosion control lines.[8] In addition, the Florida Coastal Mapping Act of 1974[9] clarifies coastal boundary demarcation. This progressive statute authorizes the Department of Natural Resources to conduct a coastal boundary mapping program and to develop uniform specifications and regulations for tidal surveying.

On the other hand, Florida, unlike such states as California, is still conveying its sovereign lands — tide and submerged lands that are held in trust for the public — into private ownership.[10] And Florida's legislators and courts have been slow in expanding public access to the state's beaches.[11]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Florida law defines the state's "coastal zone" as "that area of land and water from the territorial limits seaward to the most inland extent of maritime influence."[12] These coastal zone lands may be divided into uplands, tidelands and submerged lands.[13]

A. Uplands

Private parties own most of the state's coastal uplands, including the dry-sand portion of about 77 percent of all beaches.[14] Although the Federal Government is the source of most private upland titles, some may be traced to grants made by Spain before it ceded "all the territories . . . known by the name of East and West Florida [and] the adjacent islands" to the United States by an 1819 treaty.[15]

B. Tidelands

On March 3, 1845, Florida entered the Union, succeeding the United States as owner of the tidelands within its borders.[16] Florida owns these lands by virtue of its sovereignty on an equal footing with the original states.[17]

From 1856 to 1957, under certain circumstances, private upland owners could acquire title to adjoining tidelands by wharfing or filling out to the channel. However, the courts limited the private rights and title that could be acquired under statutes passed in 1856 and 1921, and those laws did not apply to bathing beaches.[18]

The Board of Trustees of the Internal Improvement Trust Fund now holds title to and has jurisdiction over Florida's state-owned tidelands.[19] Under the state's revised 1968 Constitution, as amended in 1970, sales of tidelands to private parties are permitted "when in the public interest."[20]

C. Submerged Lands

The Submerged Lands Act of 1953[21] confirmed Florida's title to the submerged lands within a 3-geographical-mile-wide belt along its Atlantic Ocean coast and a strip 3 marine leagues, or 9 geographical miles, in width along its Gulf of Mexico coast.[22]

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* *This is the fourth in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. This article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Florida concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or of any other agency of the State of California.* © 1981 by Peter H. F. Graber. The author also asserts copyright protection for the first three articles in the series, which were published in Vol. 48, No. 4, October 1980, pp. 14-20, Vol. 49, No. 1, January 1981, pp. 16-20, and Vol. 49, No. 2, April 1981, pp. 20-25.

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Both constitutionally and statutorily, Florida now recognizes the line of mean high water as the legal boundary between privately owned uplands and adjoining sovereign lands.

The state's revised 1968 Constitution provides: "The title to lands under navigable waters, . . . which have not been alienated, including beaches below mean high water lines *[sic]*, is held by the state, . . ."[23]

Detailed statutory standards for precisely determining the location of this legal boundary are spelled out in the Florida Coastal Mapping Act of 1974.[24] In a declaration of policy, the Legislature emphasized

> ". . . the desirability of confirmation of the mean high-water line, as recognized in the State Constitution and defined in § 177.27(15) as the boundary between state sovereignty land and uplands subject to private ownership as well as the necessity of uniform standards and procedures with respect to the establishment of local tidal datums and the determination of mean high-water and mean low-water lines. . . ."[25]

The act defines "[m]ean high-water line" as "the intersection of the tidal plane of mean high water with the shore"[26] and, consistent with National Ocean Survey practice, provides:

> " 'Mean high water' means the average height of the high waters over a nineteen-year period. For shorter periods of observation, 'mean high water' means the average height of the high waters after corrections are applied to eliminate known variations and to reduce the result to the equivalent of a mean nineteen-year value."[27]

Although the Coastal Mapping Act echoes the constitutional rule that the mean high-water line is "the boundary between the foreshore owned by the state in its sovereign capacity and upland subject to private ownership,"[28] the act recognizes the inherent difficulty of surveying and mapping that line along some portions of Florida's coastline.

Therefore, the statute provides that an "apparent shoreline" — a line representing "the intersection of the mean high-water datum with the outer limits of vegetation" — may be used on maps in areas where the mean high-water line "may be obscured by marsh, mangrove, cypress, or other types of marine vegetation."[29] The act states, however, that the apparent shoreline depicted on approved coastal zone maps is not intended to represent the legal boundary, *i.e.*, the mean high-water line.[30]

The Bureau of Survey and Mapping of the Department of Natural Resources, which administers the Coastal Mapping Act, has issued regulations which facilitate the implementation of the law. The result of the act and the regulations: a consistent statewide approach to surveying and mapping coastal boundaries.

Before the 1968 constitutional provision and the 1974 map act, Florida had followed the English common-law rule that the ordinary high-water mark[31] divides the private uplands from sovereign lands. In 1940 the Florida Supreme Court had defined the legal term "ordinary high-water mark" ambiguously in *Miller v. Bay-to-Gulf, Inc.* as "the limit reached by the daily ebb and flow of the tide, the usual tide, or the *neap tide* that happens between the full and change of the moon."[32] As authority, the court relied in part on an 1861 California decision which was the origin of that state's outmoded "neap tide" rule.[33] Unfortunately, despite the Coastal Mapping Act's precise, technically correct definition of the mean high-water line, some Florida courts are still citing the *Miller* case and referring to "neap tides."[34]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Generally, under Florida law, the legal boundary between private uplands and sovereign lands shifts as the result of those gradual, imperceptible changes in the shoreline termed accretion and erosion,[35] but there are legislatively created exceptions to this rule.

Typically, when an accretion starts forming on the upland and moves seaward, the upland owner is vested with title to the accreted land unless he himself built structures that wholly or partially cause the accretion.[36] But, in a case involving an accretion that originated in the sea, moved landward and ultimately joined with the mainland, a court disallowed an upland owner's claim to the accreted land.[37]

Although the location of the legal boundary between private uplands and sovereign lands usually moves with accretion and/or erosion, several provisions in Chapter 161 of the Florida Statutes, the Beach and Shore Preservation Act,[38] authorize the establishment of a permanently fixed boundary: *the erosion control line.*[39] This line must be distinguished from (1) the interim statewide *coastal construction setback line* and (2) the various counties' *coastal construction control lines*, which will be discussed below under "Leasing and Regulation of Coastal Zone Lands and Waters."

The law provides that, once a beach erosion control line along any segment of the shoreline has been established and a survey of the line's location has been recorded,

> ". . . title to all lands seaward of the . . . line shall be deemed to be vested in the state . . . [and] the common law shall no longer operate to increase or decrease the proportions of any upland property lying landward of such line, either by accretion or erosion or by any other natural or artificial process, . . ."[40]

This erosion control line thus becomes a permanently fixed boundary line.

The potential importance of such a permanently fixed beach erosion control line as a legal boundary is obvious within the context of Florida's serious erosion problems and its numerous projects designed to preserve the beach and shore, to control erosion and to protect against the hazards of hurricanes.

Erosion has plagued many parts of Florida's coastline. The state's proposed Coastal Management Program states that "the combination of man's actions and natural processes have resulted in about 210 miles of a total of 782 miles of beach being in a 'critical' state of erosion, meaning there is a potential threat and endangerment to coastal buildings and public property . . . [with another] 325 miles . . . in a noncritical state of erosion."[41]

Florida's Beach and Shore Preservation Act encompasses a number of provisions relating to beach nourishment and restoration and erosion control projects.[42] The

Fig. 1. Beach fill at Bal Harbour Village, Florida. Bakers Haulover inlet and jetty in background. (Photograph by Smith Aerial Surveys & Assoc., Pompano Beach, Florida, for Bal Harbour Village.)

public policy that a permanently fixed beach erosion control line, representing "the boundary line between sovereignty land . . . and the upland properties adjacent thereto,"[43] is an integral part of this general statutory scheme.

Under a related 1965 statute, the Legislature declared that "additions or accretions to the upland caused by erection of such works or improvements [as groins, jetties, breakwaters and seawalls under state permits] shall remain the property of the state if not previously conveyed."[44] A court held that the statute will not be applied retroactively to erosion control projects begun before its passage.[45] There is no reported appellate decision upholding this legislative determination that title to artificially accreted lands vests in the state, and some legal commentators question its constitutionality.[46]

Illustrative of the type of project carried out under the Beach and Shore Preservation Act is the mammoth beach nourishment and restoration program along 10.5 miles of Dade County's Atlantic Ocean shoreline extending from Bal Harbour Village (Fig. 1) southerly through Miami Beach. Before this project restored Bal Harbour Village's beaches, they had lost sand because of "the natural erosion, greatly accelerated by man-made structures and modifications of the shoreline." An inlet cut at Bakers Haulover, at Bal Harbour's northern limit, "completely [prevented] normal littoral drift from the north . . . and . . . [intercepted] sands moving northward

in the annual accretion cycle."[47]

The completed 0.8-mile Bal Harbour Village portion of the project, which includes an erosion control line as a permanent fixed legal boundary, embraces an extended jetty at Bakers Haulover, groins and fill back to previously existing bulkhead lines. The project's restored beach and hurricane-protective dunes are designed to help buffer the high-rise hotels, condominiums and apartment houses lining the shore in Bal Harbour.[48]

FLORIDA'S PUBLIC TRUST DOCTRINE

In 1968 the public trust doctrine — the common-law concept that the public has the right to use tidal waters irrespective of who owns the underlying lands — was given constitutional status in Florida. The state's Constitution, as revised in that year, provides that "title to lands under navigable waters . . ., including beaches below mean high water lines *[sic]*, is held . . ., *in trust* for all the people."[49]

From an early date, Florida case law has consistently recognized the public trust doctrine. In 1893, only a year after the United States Supreme Court's landmark public trust decision, *Illinois Central Railroad* v. *Illinois*,[50] the state's Supreme Court declared that sovereign lands "were held, not for the purposes of sale . . . , but for the use and enjoyment . . . by all the people of the state for at least the purposes of navigation and fishing and other implied purposes; . . ."[51]

In view of Florida's magnificent beaches and the economic significance of water-oriented tourism, it is not surprising that the state's courts have declared that the trust encompasses bathing, swimming and other recreational uses along with the traditional commerce, navigation and fishing. For example, in a 1939 opinion,[52] the Florida Supreme Court rhapsodized:

> "There is probably no custom more universal, more natural or more ancient, on the sea-coasts, not only of the United States, but of the world, than that of bathing in the salt waters of the ocean and the enjoyment of the wholesome recreation incident thereto. The lure of the ocean is universal; to battle with its refreshing breakers a delight. Many are they who have felt the lifegiving touch of its healing waters and its clear dust-free air. . . . The people of Florida — a state blessed with probably the finest bathing beaches in the world — are no exception to the rule. . . . We love the oceans which surround our State. We, and our visitors too, enjoy bathing in their refreshing waters. . . ."[53]

Conservation of natural resources was legislatively recognized as another public trust purpose in a 1967 bulkhead statute.[54]

Despite the public trust doctrine, sales of tidelands under various general statutory schemes have been judicially upheld in Florida.[55]

PUBLIC ACCESS RIGHTS

Unlike California,[56] Florida has no state constitutional provision manifesting a strong public policy of affording public access to its coast. And unlike Oregon[57] and Texas,[58] Florida does not have a specific statutory scheme guaranteeing public beach access.

The State of Florida may acquire access routes to public waterways by using the power of condemnation under the Outdoor Recreation and Conservation Act of 1963.[59] In addition, the state may "provide matching funds to counties and municipalities of up to 50 percent of the cost of purchasing, exclusive of condemnation, rights-of-way for access roads or walkways to public beaches. . . ."[60]

Another statutory method of providing beach access is in connection with erosion control, beach preservation and hurricane protection projects under the Beach and Shore Protection Act. Money from the Erosion Control Trust Fund Account may be used to provide for this access.[61]

Florida's courts have not been as eager as those of California, Hawaii, Oregon, New Hampshire and Texas to embrace various legal theories such as implied dedication and custom to assure public coastal access. However, in its 1974 *Tona-Rama* decision,[62] the Florida Supreme Court gave at least a limited recognition to the ancient legal doctrine of custom as applied to beaches.[63]

The case arose when the defendant, the private owner of waterfront property in Daytona Beach, erected an observation tower, whose circular foundation occupied about 230 square feet of the 13,500-square-foot dry-sand tract, for use in conjunction with a recreational pier. The owner of a rival observation tower filed suit, arguing in part that the public had acquired an exclusive public right to use *all* of the dry-sand tract. While denying that such a right existed, the court did state:

> ". . . The general public may continue to use the dry sand area for their usual recreational activities, not because the public has any interest in the land itself, but because of a right gained through custom to use this particular area of the beach as they have without dispute and without interruption for many years."[64]

Nevertheless, the majority of the court in *Tona-Rama* found that defendant's observation tower was "consistent" with the public's recreational use of the beach, and thus refused to order destruction of the tower.[65]

The proposed Florida Coastal Managemnt Program, recognizing that "opportunities to obtain access for swimming, fishing, boating, and the general enjoyment of the coast are diminishing" while "demands on the coast are increasing rapidly," recommends a number of methods of improving public access.[66]

PRIVATE LITTORAL RIGHTS

Private upland owners in Florida enjoy the usual common-law littoral rights of access to the adjoining tide and submerged lands.[67] Moreover, Florida statutory law now provides that these owners have qualified preferential rights to purchase the adjacent sovereign lands from the state.[68]

The courts have upheld the additional littoral right to an unobstructed view from the upland parcel over the tidelands to the waters beyond. In one decision, the Florida Supreme Court balanced this right, claimed by the owner of a lot located on a long artificial peninsula of dredged-in fill, with the right of the owners of a parcel of

submerged land further waterward in Boca Ciega Bay to develop their parcel.[69]

Private owners of upland in Florida do not have the unfettered littoral right to bulkhead or fill and dredge the adjoining tide and submerged lands; applicable laws must be followed.[70]

Miami Beach, with its erosion problems and numerous resort hotels, has been the scene of legal disputes over whether upland owners could build across the beach and exclude the public by erecting bulkheads and other structures. In 1953 a circuit court enjoined Miami Beach officials from granting permits to upland owners for such structures, except for jetties built perpendicular to the beach to preserve the beach and trap the sand.[71]

Florida's attorney general takes the position that owners must obtain the state's consent and approval before wharfing out.[72]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The Board of Trustees of the Internal Improvement Trust Fund may lease state-owned tide and submerged lands for the discovery and production of oil and gas and other minerals.[73] The law requires county or city approvals of leases in some areas.[74] In 1944 the Florida Supreme Court held the state oil leases of sovereign lands did not violate the public trust doctrine.[75]

B. Regulatory Functions

Various state, regional and local governmental entities exercise regulatory powers over lands and waters within Florida's coastal zone. The following summarizes some of these regulatory functions.

Under the Beach and Shore Preservation Act, any "coastal construction"[76] requires a permit from the Department of Natural Resources.[77] Permits for dredging and filling in sovereign lands are also regulated by statute; the Department of Environmental Regulation oversees this permit process.[78]

Coastal construction has been a matter of considerable concern in Florida because of the heavy development along the state's lengthy coastline, the low rise in elevation landward of coastal waters and such natural phenomena as hurricanes.[79] To meet this concern, the Beach and Shore Protection Act sets forth several regulatory procedures, administered through the Department of Natural Resources, restricting new excavation and construction along the coast. An interim statewide *coastal construction setback line*, uniformly 50 feet landward of the line of mean high water, was imposed in 1970.[80] Construction waterward of that line requires a waiver or variance. In 1971 the Legislature authorized coastal counties to establish engineered *coastal construction control lines* along sandy beaches.[81]

As indicated above, Florida, unlike California, did not create new coastal land-use management machinery to implement the federal Coastal Zone Management Act of 1972, as amended,[82] within the Sunshine State. Instead, the Florida Coastal Management Act of 1978,[83] emphasizes that "land and water management policies should, to the maximum possible extent, be implemented by local government. . . ."[84] The Department of Environmental Regulation administers the act and is responsible for developing the state's comprehensive coastal plan.[85]

In February 1981 Florida submitted its proposed Coastal Management Program to the U.S. Office of Coastal Zone Management, and formal federal approval is projected for August 1981. The program, based upon 24 existing state laws, proposes that the entire state and its territorial waters be included within its coastal zone.[86]

"Issues of special focus" are highlighted in the program. "The first issue is hazards management. . . . Efforts presently underway focus on hurricane damage mitigation as the first phase of this . . . effort."[87]

Errata in "Part III: The California Approach"

Unfortunately, there were numerous typographical errors in this last article in this series, "The Law of the Coast in a Clamshell: Part III: The California Approach," *Shore and Beach*, Vol. 49, No. 2, April 1981, pp. 20-25. The more important errors should be corrected as follows:

1. Page 22, 2d paragraph under "Legal Effect of Physical Changes in the Location of the Shoreline," 3d line: insert "it" after "as"
2. Page 22, 6th paragraph under "Legal Effect of Physical Changes in the Location of the Shoreline," 1st line: change "retired" to "retried."
3. Page 23, 3d paragraph under "Public Access Rights" should read as follows:

> The California Supreme Court citied this constitutional provision and a number of statutes in its controversial 1970 *Gion-Dietz* decision to demonstrate "the strong public policy in favor of according public access to the coast."[51] In *Gion-Dietz*, the court held that when the general public has used a beach or an accessway to the shoreline as if it were public property for at least five years with the owner's acquiescence, the beach or accessway may be found to be impliedly dedicated to the public. Although the Legislature subsequently curtailed the impact of *Gion-Dietz*,[52] the doctrine of implied dedication still is an important means of assuring public access rights in California.

4. Page 23, 1st paragraph under "Leasing," 5th line: insert reference to note 57 at end of sentence
5. Page 24, note 23, 1st line: change "Cic," to "Civ."
6. Page 24, note 25, 2d line: delete comma after "606"
7. Page 24, note 32, 1st line: change "211" to "219"
8. Page 25, note 45, 1st line: delete comma after "152"
9. Page 25, note 51, 2d line: change "152" to "162,"
10. Page 25, note 53, 4th line: insert "62" before "Cal." and delete comma after "432"

Two other such issues are discussed in the program: (1) resource protection issues (*e.g.*, coral reefs, estuaries, barrier islands),[88] and (2) coastal development issues (*e.g.*, ports, disposal of dredged material, marina siting, energy facilities, fisheries, coastal recreation, access).[89]

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REFERENCES

1. According to *Hayes* v. *Bowman*, 91 So. 2d 795, 799 (Fla. 1957), the state's "general coastline" is 1,197 statute miles long and "our detailed tidal shoreline, including bays, sounds and other bodies measured to the head of tidewater," is 8,426 miles long. A recent state report, however, says Florida's "tidal shoreline (including islands with land area greater than 40 acres) is approximately 11,000 miles in length." Only Alaska has a longer coastline. Almost no point in Florida is more than 70 miles from the coast, and more than 75 percent of its population lives in coastal counties. *Draft Environmental Impact Statement of the Proposed Coastal Management Program for the State of Florida* [hereinafter cited as DEIS], xxii, II-1, II-10, IV-1 (February 1981).
2. *Id.* at II-1.
3. Fla. Const., art. X, § 11.
4. Fla. Stat. § 380.20 *et seq.* (1980 Supp.).
5. DEIS, *supra*, note 1, at II-12-15. The Florida Legislature instructed "the Department of Environmental Regulation to compile a [coastal management] program based on existing statutes and existing rules. . . ." Fla. Stat. § 380.21(2) (1980 Supp.). Florida's approach thus is quite different from the new body of law reflected in the former California Coastal Zone Conservation Act (Cal. Pub. Resources Code § 27000 *et seq.*), adopted when the voters passed Proposition 20 in 1972, and in the current California Coastal Act of 1976 (Cal. Pub. Resource Code § 30000 *et seq.*). Instead of a California-style program involving new statewide and regional agencies to implement coastal zone planning and permitting, the Florida program contemplates voluntary local governmental participation. Fla. Stat. § 380.24 (1980 Supp.). However, Florida has recognized the need for coordinated coastal resource management since at least 1970. DEIS, *supra*, note 1, at II-1-2. The state's proposed program concedes "[t]here often is no clear-cut delineation of functions among the various federal, state, 35 county and more than 160 municipal, and regional government agencies involved with management of state coastal resources," and states that the integration of these authorizations "is perhaps the greatest challenge facing the state program." DEIS, *supra*, note 1, at II-7.
6. Fla. Stat. § 161.052 (1980 Supp.).
7. Fla. Stat. § 161.053 (1980 Supp.).
8. Fla. Stat. § 161.151 (3); Fla. Stat. §§ 161.161, 161.181, 161.191 (1980 Supp.).
9. Fla. Stat. § 177.25 *et seq.* (1980 Supp.).
10. See, *e.g.*, Fla. Stat. § 253.12 (1980 Supp.).
11. This problem is recognized in the proposed Florida Coastal Management Program: "Intensive commercial and residential development in beach areas has restricted public use of the beaches. Property owners are not required to provide access to the publicly-owned wet sand beach." DEIS, *supra*, note 1, at II-6. See also *id.* at II-5, II-13, II-234-241, II-358-362.
12. Fla. Stat. § 380.19(2) (b) (1980 Supp.). For a discussion of the proposed Florida Coastal Management Program's definition of the coastal zone, see "Leasing and Regulation of the Coastal Zone Lands and Waters," *infra*.
13. This classification is used for convenience and consistency with other articles in this series. However, the terms *submerged lands* or *sovereignty lands* are often used in Florida statutes and case law and by legal writers to mean both those two classes of lands defined in this series as tidelands (lands lying between the lines of mean high and mean low water) and submerged lands (lands lying seaward of the line of mean low water). Tidelands are frequently referred to in Florida as the *foreshore*.
14. F. Maloney, D. Fernandez, A. Parrish, Jr. & J. Reinders, *Public Beach Access: A Guaranteed Place to Spread Your Towel*, 29 U. Fla. L. Rev. 853 n. 3 (1977). A state report says that out of about 1,160 miles of saltwater beach, only 272 miles is in federal, state or local government ownership, not all of which is open to the public. DEIS, *supra*, note 1, at II-235.
15. The Treaty of Amity, Settlement, and Limits With Spain, 8 Stat. 252, T.S. No. 327, was concluded Feb. 22, 1819, and became effective Feb. 22, 1821.
16. *State ex rel. Ellis* v. *Gerhing*, 56 Fla. 603, 610, 611, 47 So. 353, 355-356 (1908); *State* v. *Black River Phosphate Co.*, 32 Fla. 82, 94, 13 So. 640, 644 (1893).
17. 5 Stat. 742. For a brief discussion of the equal-footing doctrine, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
18. The original statutory authority, the Riparian Act of 1856, Fla. Laws 1856, ch. 791, was held by the courts as giving upland owners only a qualified title to the lands until they are actually wharfed or filled. *Panama Ice & Fish Co.* v. *Atlanta & St. Andrews Bay Ry.*, 71 Fla. 419, 71 So. 608 (1916). The Riparian Act was modified in 1921 by the Butler Act, Fla. Laws 1921, ch. 8537. The Butler Act was also construed to vest no absolute title to tidelands until they "are filled or permanently improved." *Stein* v. *Brown Properties*, 104 So. 2d 495, 499 (Fla. 1958). In 1957 the Butler Act was repealed by the Bulkhead Act, Fla. Laws 1957, ch. 57-362. Under the Bulkhead Act, as codified in Chapter 253 of the Florida Statutes, no one could acquire title to tidelands except by purchase from the state. Many of the original provisions of the Bulkhead Act have since been repealed.
19. The board consists of seven trustees, including the governor and the Cabinet. Fla. Stat. §§ 253.001, 253.02, 253.03, 253.12 (1980 Supp.). The Division of State Lands performs "staff duties and functions related to acquisition, administration, and disposition" of such lands. Fla. Stat. § 253.002 (1980 Supp.).
20. Fla. Const., art. X, § 11. A number of restrictions are placed on such sales. See, *e.g.*, Fla. Stat. §§ 253.02, 253.12 (2) (a), (b) (1980 Supp.). It is required, for example, that an applicant to purchase sovereign lands must also have (1) an application for the establishment of a bulkhead line if no such line exists, (2) an application for a fill permit and (3) a permit or application for a permit to dredge fill material from beneath the navigable waters in the event he intends to obtain such material.
21. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
22. The Submerged Lands Act's confirmation of Florida's submerged lands rights in the Gulf of Mexico depends on the location of the state's congressionally approved maritime boundary. *United States* v. *Florida*, 363 U.S. 121, 129 (1960); *United States* v. *Louisiana*, 363 U.S. 1, 24-36 (1960).
23. Fla. Const., art. X, § 1. The 1970 amendment to this provision did not change the boundary.
24. Fla. Stat. § 177.25 *et seq.* (1980 Supp.).
25. Fla. Stat. § 177.26 (1980 Supp.).
26. Fla. Stat. § 177.27 (16) (1980 Supp.).
27. Fla. Stat. § 177.27 (15) (1980 Supp.). This definition is substantially in accord with the federal rule enunciated in *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). See *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and Vol. 49, No. 2, April 1981, p. 21. For decisions applying the Coastal Mapping Act, see *St. Joseph Land and Development Co.* v. *Florida State Board of Trustees*, 365 So. 2d 1084, 1087-1089 (Fla. 1st Dist. Ct. App. 1979); *Kruse* v. *Grokap, Inc.*, 349 So. 2d 788, 790 n. 8 (Fla. 2d Dist. Ct. App. 1977).
28. Fla. Stat. § 177.28 (1980 Supp.). This statute excepts from the general rule any "privately owned submerged lands validly alienated by the state . . . or its legal predecessors," *i.e.*, Spain and the United States.
29. Fla. Stat. § 177.27 (1) (1980 Supp.).
30. Fla. Stat. § 177.34 (1980 Supp.).
31. For a brief discussion of the English common-law rule, see *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 17.
32. *Miller* v. *Bay-to-Gulf, Inc.*, 141 Fla. 452, 459-460, 193 So. 425, 428 (1940) (emphasis added).
33. See *Shore and Beach*, Vol. 49, No. 2, April 1981, pp. 21-22.

34. *Knox v. Gadsby, Inc., supra*, 349 So. 2d 788, 790.
35. *Brickell v. Trammell*, 77 Fla. 544, 82 So. 221 (1919); *Municipal Liquidators, Inc. v. Trench*, 153 So.2d 728 (Fla. 2d Dist. Ct. App. 1963). The Coastal Mapping Act states that no provision in that statute "shall be deemed to modify the common law of this state with respect to the legal effects of accretion, reliction, erosion or avulsion." Fla. Stat. § 177.28 (1980 Supp.).
36. *Mexico Beach Corp. v. St. Joe Paper Co.*, 97 So. 2d 708, 710 (Fla. 1st Dist. Ct. App. 1957), *cert. denied*, 101 So. 2d 817 (Fla. 1958).
37. *Siesta Properties, Inc. v. Hart*, 122 So. 2d 218, 221 (Fla. 2d Dist. Ct. App. 1960).
38. Fla. Stat. § 161.011 *et seq.* This act is a component of the proposed Florida Coastal Management Program.
39. The erosion control line is "the line determined in accordance with the provisions of §§ 161.141-161.211 [relating to beach nourishment and restoration and erosion control projects] which represents the landward extent of the claims of the state in its capacity as sovereign title holder of the submerged bottoms and shores of the Atlantic Ocean, the Gulf of Mexico, and the bays, lagoons and other tidal reaches thereof on the date of the recording of the survey as authorized in § 161.181." Fla. Stat. § 161.151 (3). See also Fla. Stat. § 161.141 (1980 Supp.).
40. Fla. Stat. § 161.191(1), (2) (1980 Supp.).
41. DEIS, *supra*, note 1, at II-363.
42. Fla. Stat. § 161.141-161.211 (1980 Supp.).
43. Fla. Stat. § 161.141 (1980 Supp.).
44. Fla. Stat. § 161.051.
45. *Board of Trustees of the Internal Improvement Trust Fund v. Madeira Beach Nominee, Inc.*, 272 So. 2d 209, 214 (Fla. 2d Dist. Ct. App. 1973).
46. See R. BOYER & M. COOPER, *Real Property*, 28 U. Miami L. Rev. 1, 26 (1973). In California, such artificially accreted lands belong to the state or its legislative grantee, and not the private upland owner. See *Shore and Beach*, Vol. 49, No. 2, April 1981, p.22.
47. H.M. VON OESEN, "A Beach Restoration Project Study, Bal Harbour Village, Florida," *Shore and Beach*, Vol. 41, No. 2, October 1973, pp. 3-4. For further technical data on this project, see COL. J.W.R. ADAMS, "Florida's Beach Program at the Crossroads," *Shore and Beach*, Vol. 49, No. 2, April 1981, pp. 10, 11-13.
48. Coastal Zone 80, the Second Symposium on Coastal and Ocean Management, held at Hollywood, Florida, in November 1980, included a field trip of the Bal Harbour restored beach area. The tour was co-sponsored by the American Shore and Beach Preservation Association and the Dade County Environmental Resources Management Department.
49. Fla. Const., art. X, § 11 (emphasis added).
50. 146 U.S. 387 (1892).
51. *State v. Black River Phosphate Co., supra*, 32 Fla. 82, 106, 13 So. 640, 648.
52. *White v. Hughes*, 139 Fla. 54, 190 So. 446 (1939).
53. 139 Fla. at 58-59, 190 So. at 448-449. In this case the court held that the public's right to use a beach for bathing and recreational purposes is superior to that of motorists driving vehicles on it under a statute declaring the beach to be a public highway.
54. Fla. Stat. § 253.122 (repealed by Fla. Laws 1975, ch. 75-22, § 26).
55. See, *e.g.*, *Duval Engineering and Contracting Co. v. Sales*, 77 So. 2d 431 (Fla. 1954); *Broward v. Mabry*, 58 Fla. 398, 50 So. 826 (1909); *State ex rel. Ellis v. Gerbing, supra*, 56 Fla. 603, 47 So. 353. See statutes cited in note 18, *supra*.
56. Cal. Const., art. X, § 4 (formerly art. XV, § 2).
57. Ore. Rev. Stat. § 390.610 *et seq.*
58. Tex. Nat. Resources Code § 61.011 *et seq.*
59. Fla. Stat. § 375.031 (6) (1980 Supp.).
60. Fla. Stat. § 375.031 (10) (1980 Supp.).
61. Fla. Stat. § 161.091 (1) (a), (b) (1980 Supp.).
62. *City of Daytona Beach v. Tona-Rama, Inc.*, 294 So. 2d 73 (Fla. 1974).
63. Under this English common-law concept, citizens of localities by immemorial custom had the right to use private land, but it "must have continued from time immemorial, without interruption, and as a right; it must be certain as to the place, and as to the persons; and it must be certain and reasonable as to the subject matter or rights created." 3 H. TIFFANY, *Law of Real Property* § 935, p. 623 (3d ed. 1939).
64. 294 So. 2d at 78. It may be argued, however, that this language was unnecessary to the decision (*i.e.*, dictum).
65. *Id.*
66. DEIS, *supra*, note 1, at II-239. For an interesting article examining various issues concerning public access to the state's coast, see L. CURTIS-KOLHNEMANN, "Public Access to Florida's Beaches," *Shore and Beach*, Vol. 47, No. 1, January 1979, pp. 27-29.
67. *Thiesen v. Gulf, F & A. Ry.*, 75 Fla. 28, 78 So. 491 (1918). For a statute defining riparian rights generally, see Fla. Stat. § 197.228 (1980 Supp.).
68. Fla. Stat. § 253.111 (7) (1980 Supp.). However, if there is no private upland owner along the coastal stretch in question, or if he waives his priority right, and if the Board of Trustees of the Internal Improvement Trust Fund decides to sell the sovereign land, the board of commissioners of the county in which the land is located must be given the first opportunity to acquire the land and devote it to public purposes before any other private offers can be considered by the state. Fla. Stat. § 253.111 (1)-(6) (1980 Supp.). See also Fla. Stat. § 253.12 (4) (1980 Supp.), limiting sale of "lands . . . between the . . . mean high waterline and any bulkhead line . . . only to the upland riparian owner and to no other person, firm, or corporation; . . ." In addition, under Fla. Stat. § 253.14 the private upland owner may bring suit "against the sale provided for in § 253.12 on the ground that he would be thereby deprived of his riparian rights granted to him by law." See note 18, *supra*, regarding upland owners' rights under earlier statutes.
69. *Hayes v. Bowman, supra*, 91 So. 2d 795, 801.
70. A full discussion of the relevant statutory requirements, which have changed from time to time, is beyond the scope of this article. Basically, any dredging or filling in navigable waters now requires a permit issued under Chapters 253 and 403 of the Florida Statutes, subject to certain exemptions. See generally Fla. Stat. § 253.124 (1980 Supp.) regarding applications for fill permits at the present time. In 1975, when the former bulkhead statute (Fla. Stat. § 253.122) was repealed, the Legislature provided that "[a]ll bulkhead lines heretofore established pursuant to [that former statute] are hereby established at the line of mean high water or ordinary high water." Fla. Stat. § 253.1221 (1980 Supp.). Filling waterward of such line was prohibited except upon compliance with Chapter 253 of Florida Statutes. *Id.* See note 18, *supra*, for citations to the Riparian Act of 1856 and the Butler Act of 1921, which previously regulated rights to bulkhead and fill. See note 20, *supra*, for citations to current statutes relating to requirements imposed on private upland owners applying to buy adjoining sovereign lands, including the need to apply for the establishment of a bulkhead line if none exists and to apply for a fill permit.
71. *State ex rel. Marsh v. Simberg (No. 2)*, 4 Fla. Supp. 85, 97 (Cir. Ct., Dade Co. 1953). See also *State ex rel. Taylor v. Simberg*, 2 Fla. Supp. 178 (Cir. Ct., Dade Co. 1952).
72. Op. Fla. Atty. Gen. 059-241 (1959).
73. Fla. Stat. §§ 253.45, 253.47, 253.51.
74. Fla. Stat. § 253.61.
75. *Watson v. Holland*, 155 Fla. 342, 20 So. 2d 388 (1944).
76. This term is defined as "any work or activity which is likely to have a material physical effect on existing coastal conditions or natural shore and inlet processes." Fla. Stat. § 161.021 (4) (1980 Supp.).
77. Fla. Stat. § 161.041 (1980 Supp.).
78. See generally Fla. Stat. § 253.123 *et seq.* and the Florida Air and Water Pollution Control Act, Fla. Stat. § 403.011 *et. seq.* For a brief discussion of certain statutory requirements, see note 70, *supra*.
79. DEIS, *supra*, note 1, at II-79, II-241 *et seq.*
80. In general, this interim setback line, established on a statewide basis, prohibits new construction within a strip 50 feet landward of "the line of mean high water at any riparian coastal location fronting the Gulf of Mexico or Atlantic coast shoreline of the state, . . ." Fla. Stat. § 161.052(1) (1980 Supp.). "[W]here an erosion control line has been established . . . , that line, or the presently existing mean high-water line, whichever is more landward, shall be considered to be the mean high-water line for the purposes of this section." *Id.* The coastal construction setback line does not apply to areas having "vegetation-type nonsandy shores." Fla. Stat. § 161.052 (5). (1980 Supp.). This interim setback line remains in force pending the establishment of the coastal counties' construction control lines discussed in note 81, *infra*. Fla. Stat. § 161.053 (9) (1980 Supp.).
81. These construction control lines are to be established by the Department of Natural Resources on a county-by-county basis "along the sand beaches . . . fronting on the Atlantic Ocean and the Gulf of Mexico." Fla. Stat. § 161.053 (1) (1980 Supp.). These engineered "lines shall be established so as to define that portion of the beach-dune system which is subject to severe fluctuations based on a 100-year storm surge or other predictable weather conditions, and so as to define the area within which special structural design consideration is required to insure protection of the beach-dune

system, any proposed structure, and adjacent properties, rather than to define a seaward limit for upland structures." *Id.* The law provides that such "lines shall be established. . . only after it has been determined from a comprehensive engineering study and topographic survey that . . . [their] establishment . . . is necessary for the protection of upland properties and the control of beach erosion," and only after public hearings are held. Fla. Stat. § 161.053 (2) (1980 Supp.). The department's consideration must include "ground elevations in relation to historical storm and hurricane tides, predicted maximum wave uprush, beach and offshore ground contours, the vegetation line, erosion trends, the dune or bluff line, if any exist, and existing upland development,. . ." *Id.* The statute provides that coastal counties or coastal municipalities "may establish construction zoning and building codes in lieu of the provisions of this section,. . . [upon approval] by the department as being adequate to protect the shoreline from erosion and safeguard adjacent structures." Fla. Stat. § 161.053 (3) (1980 Supp.). Various exemptions to the law are permitted for shore protection works, for proposed structures in areas where "a number of existing structures have established a reasonably continuous and uniform construction line closer to the line of mean high water than the [coastal construction line or locally established zoning and building codes] . . .," and for existing or partially built structures. Fla. Stat. § 161.053 (4), (7), (10) (1980 Supp.). As of June 1980 coastal construction "control lines had been established and recorded for 22 of the 24 counties involved." DEIS, *supra*, note 1, at II-366. The lines generally are from 100 to 150 feet landward of the mean high-water line. *Ibid.* Dade County (Miami, Miami Beach) and Broward County (Fort Lauderdale), the two counties without such lines, are expected to have approval soon. *Id.* at II-367. For discussions of the state law and a proposed model local ordinance, see W. BENTON, *Coastal Construction Setback Lines*, 50 Fla. Bar J. 627 (1976); F. MALONEY & A. O'DONNELL, JR., *Drawing the Line at the Oceanfront: The Role of Coastal Construction Setback Lines in Regulating Development of the Coastal Zone*, 30 U. Fla. L. Rev. 383 (1978).

82. 16 U.S.C. § 1451 *et seq.*
83. Fla. Stat. § 380.20 *et seq.* (1980 Supp.).
84. Fla. Stat. § 380.21 (1) (c) (1980 Supp.).
85. Fla. Stat. § 380.19 (3), (4).
86. However, certain areas are excepted, including lands owned by the Seminole Indian Tribe, and for purposes of § 307 of the federal Coastal Zone Management Act, Florida's coastal zone is limited to the coastal counties. DEIS, *supra*, note 1, at II-10.
87. DEIS, *supra*, note 1, at xxi, II-241-252.
88. DEIS, *supra*, note 1, at II-170-194.
89. DEIS, *supra*, note 1, at II-194-241. See also *id.* at III-358-362.

The Law of the Coast in a Clamshell*

Part V: The Texas Approach

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As the only state to have been an independent republic,[1] Texas occupies a unique niche in the pantheon of American states. And as the leading mineral-producing state,[2] with extensive offshore production of oil and gas, Texas is vitally important in today's energy-hungry nation.

Texans remain an independent breed. Witness their recent rejection of the Federal Government's carrot: funding under the Coastal Zone Management Act of 1972 (CZMA).[3] The state's CZMA grant terminated April 30, 1981, when Texas elected not to seek federal approval of its proposed Texas Coastal Program.[4]

But, unlike some other states, such as California, Texas is eager to develop the petroleum resources off its coast.[5] That coast already boasts one of the greatest concentrations of energy-related facilities in the nation: 39 petroleum refineries, 54 petrochemical installations, 73 gas-producing plants, and a large network of oil and gas pipelines.[6] And it is Texas' clear policy to encourage additional energy facilities in its coastal zone[7] in order to serve oil and gas production from both the state-owned tide and submerged lands and the federally managed Outer Continental Shelf.[8]

Nevertheless, Texas also has been a forerunner in encouraging and protecting public access to its seashore. In 1959, years before some other states even recognized that beach access was a problem, the Lone Star State's Legislature passed the Texas Open Beaches Act,[9] emphasizing the state's public policy of encouraging recreational use of its beaches and tidal waters.

TITLE TO LANDS WITHIN THE COASTAL ZONE

Texas' coastal lands may be divided conveniently into uplands, tidelands and submerged lands.[10]

The 1980 State Hearing Draft of the proposed comprehensive Texas Coastal Program defined the state's coastal zone as including the first tier of counties along the coast as well as tide and submerged lands seaward to the 3-statute-mile limit of the U.S. territorial sea.[11]

A. Uplands

Most of the state's coastal uplands are privately owned,[12] but some of these littoral lands are subject to public rights under Texas law.[13]

Due to the state's unique history, the original source of title to any given parcel of uplands may be either (1) an early Spanish or Mexican grant, or (2) a conveyance from the Republic of Texas or the state.[14] Unlike some other jurisdictions, the Federal Government never had title to any Texas uplands.

The source of upland title is important because it determines the seaward limit of the parcel. As will be explained later,[15] there are two distinct tidal boundary rules in Texas, one for pre-1840 grants of littoral lands, and a second for later upland patents. Preexisting Spanish or Mexican private titles were protected under the 1848 Treaty of Guadalupe Hidalgo,[16] ending the Mexican War.

B. Tidelands

Except for some tidelands granted to local entities, navigation districts and private parties,[17] the state owns the lands lying between (1) either the line of mean high water or the line of mean higher high water[18] and (2) the line of mean low water.

In addition, a 1977 Texas law provides that "[t]he water of the ordinary flow, underflow, and tides of every bay or arm of the Gulf of Mexico, . . . is the property of the state."[19]

The School Land Board,[20] with the assistance of the staff of the General Land Office,[21] is charged with managing state-owned tidelands under the Texas Coastal Public Lands Management Act of 1973.[22]

C. Submerged Lands

In 1836 the First Congress of the Republic of Texas fixed the seaward boundary of the new nation at 3 marine leagues from the Gulf of Mexico's shore.[23]

Significantly, even though the Republic later adopted the common law, it expressly retained the Mexican, or civil-law, system with respect to the sovereign's reservation of minerals under all its lands.[24]

When Texas joined the Union in 1845, the U.S. Congress passed, and the president approved, a joint resolu-

*This is the fifth in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes aspects of the constitutional, statutory and case law of the State of Texas concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or of any other agency of the State of California. © 1981 by Peter H. F. Graber. The author also asserts copyright protection for the first four articles in the series, which were published in Vol. 48, No. 4, October 1980, pp. 14-20; Vol. 49, No. 1, January 1981, pp. 10-10; Vol. 49, No. 2, April 1981, pp. 20-25; and Vol. 49, No. 3, July 1981, pp. 13-20.

tion[25] accepting the fledgling state's new Constitution, which provided that

> "[the] rights of property. . . which have been acquired under the [prior] Constitution and laws of the Republic shall not be divested . . . but . . . shall remain precisely in the situation which they were before the adoption of this Constitution."[26]

In its post-World War II legal battle with the United States over submerged lands, Texas argued, unsuccessfully, that Congress' action had the effect of ratifying Texas' decision, reflected in its 1845 Constitution, to continue reserving minerals under all its lands, including submerged lands in the Gulf.[27]

The 1848 Treaty of Guadalupe Hidalgo between the United States and Mexico expressly recognized Texas' 3-league Gulfward boundary.[28] The limit was further confirmed by the Gadsen Treaty, signed in 1853.[29]

Price Daniel, then Texas' attorney general, wrote in 1949:

> "Texas' 3-league boundary in the Gulf and its ownership of the lands and minerals within such boundaries have never been challenged until the recent claim of the Federal Government against all the coastal states."[30]

Daniel was referring to a series of lawsuits known as the *Submerged Lands Cases*,[31] one of which involved Texas.[32]

In 1950 the U.S. Supreme Court said the Federal Government has paramount power over these submerged lands, including dominion over such natural resources as oil. However, Congress then passed the Submerged Lands Act of 1953,[33] nullifying the court's ruling and confirming Texas' title to the 3-league-wide strip in the Gulf of Mexico. In 1960 the U.S. Supreme Court expressly

> "recognized that Texas has jurisdiction over submerged land to a distance of three marine leagues, or approximately 10.35 statute miles. . . ."[34]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Texas has two distinct legal boundaries between privately owned uplands and sovereign lands beneath tidal waters: (1) the *line of mean higher high water* [tide] when the littoral parcel's title stems from a Spanish or Mexican grant or a conveyance by the Republic of Texas before January 20, 1840,[35] and (2) the *line of mean high water* [tide] if the source of title to the uplands was a post-1840 grant by the Republic or the State of Texas.[36] Consequently, in general,[37] the base instrument in a chain of title to littoral lands determines whether the upland/tideland boundary is ascertained under the Spanish/Mexican version of the civil-law rule[38] or under the common-law test.[39]

Unlike Florida, where upland/tideland boundary questions were recently resolved by new constitutional and statutory provisions,[40] Texas' courts settled these increasingly important issues.

In the 1958 case of *Luttes* v. *State*[41] the state's Supreme Court held that pre-1840 Spanish, Mexican and Republic littoral grants extend only to the line of mean *higher* high water [tide] instead of to the more seaward line of mean high water [tide]. Two years earlier, in *Rudder* v. *Ponder*,[42] the Texas court had embraced the U.S. Supreme Court's landmark 1935 decision in *Borax, Ltd.* v. *City of Los Angeles*,[43] equating the line of mean high water [tide] with the common-law term "ordinary high-water mark."

To the credit of the Texas Supreme Court, both the *Luttes* and *Rudder* decisions clarify a previously murky area of the state's coastal law by applying modern scientific and technical data to set forth workable, precise definitions of both the Spanish/Mexican and common-law tidal boundary rules.

1. The Spanish/Mexican Rule: Before *Luttes*, "[e]xactly what the appropriate civil law rule should be became a subject for much discussion by Texas courts."[44] For example, an 1859 state Supreme Court case said that under the civil law, "the shore [extends] to the line of highest tide in winter."[45]

In 1944, in *State* v. *Balli*,[46] the Texas Supreme Court "for the first time" faced "the question of the seaward boundary of a Mexican or Spanish grant."[47] The court held the line of *mean high tide* was the boundary, rejecting the state's contention that the shoreline should be based on the *highest tide* in *winter*. However, *Balli* is "limited strictly to the particular case and therefore to Padre Island, where the grant was located."[48]

Later, the U.S. Fifth Circuit Court of Appeals, applying Texas law, considered the seaward extent of Spanish and Mexican grants in *Humble Oil & Ref. Co.* v. *Sun Oil Co.*[49] But the court avoided deciding the civil-law boundary of a large mud flat in Laguna Madre by affirming the trial court's holding that the mud flat had accreted to a state-owned island rather than to the mainland grants leased by Humble.

In *Luttes*, which involved an 1829 upland grant adjoining Laguna Madre by the Mexican State of Tamaulipas, the Texas Supreme Court elected to apply the Spanish and Mexican seashore boundary law set forth in *Las Siete Partidas*,[50] instead of that defined in the early Roman scholar Justinian's *Institutes*.[51] The court, utilizing modern scientific knowledge about tidal epochs, held in a 1958 decision that "the applicable rule of the Mexican (Spanish) law is that of the average of *highest* daily water computed over or a corrected to the regular tidal cycle of 18.6 years."[52] However, the court then ambiguously said: "This means in substance mean high water."[53]

Later, the court conceded that this part of its original opinion had "been criticized, and no doubt justly so, for some confusion as to whether the landward line of the shore as regards abutting Spanish or Mexican grants is that of mean high tide or mean *higher* high tide, since along the Texas coast there are generally two daily high tides and two daily low tides."[54]

The court, recognizing the use of a mean-higher-high-water datum instead of a mean-high-water datum "conceivably could, in a given case, be substantial from the standpoint of acreage involved," clarified its earlier decision:

> ". . . It was our intention to hold, and we do hold, that the line under the Spanish (Mexican) law is that of *mean higher high tide*, as distinguished from the *mean high tide* of the Anglo-American law."[55]

In general, there is actually only a small difference between the datums of mean high water and mean higher high water along much of the Texas coast, a

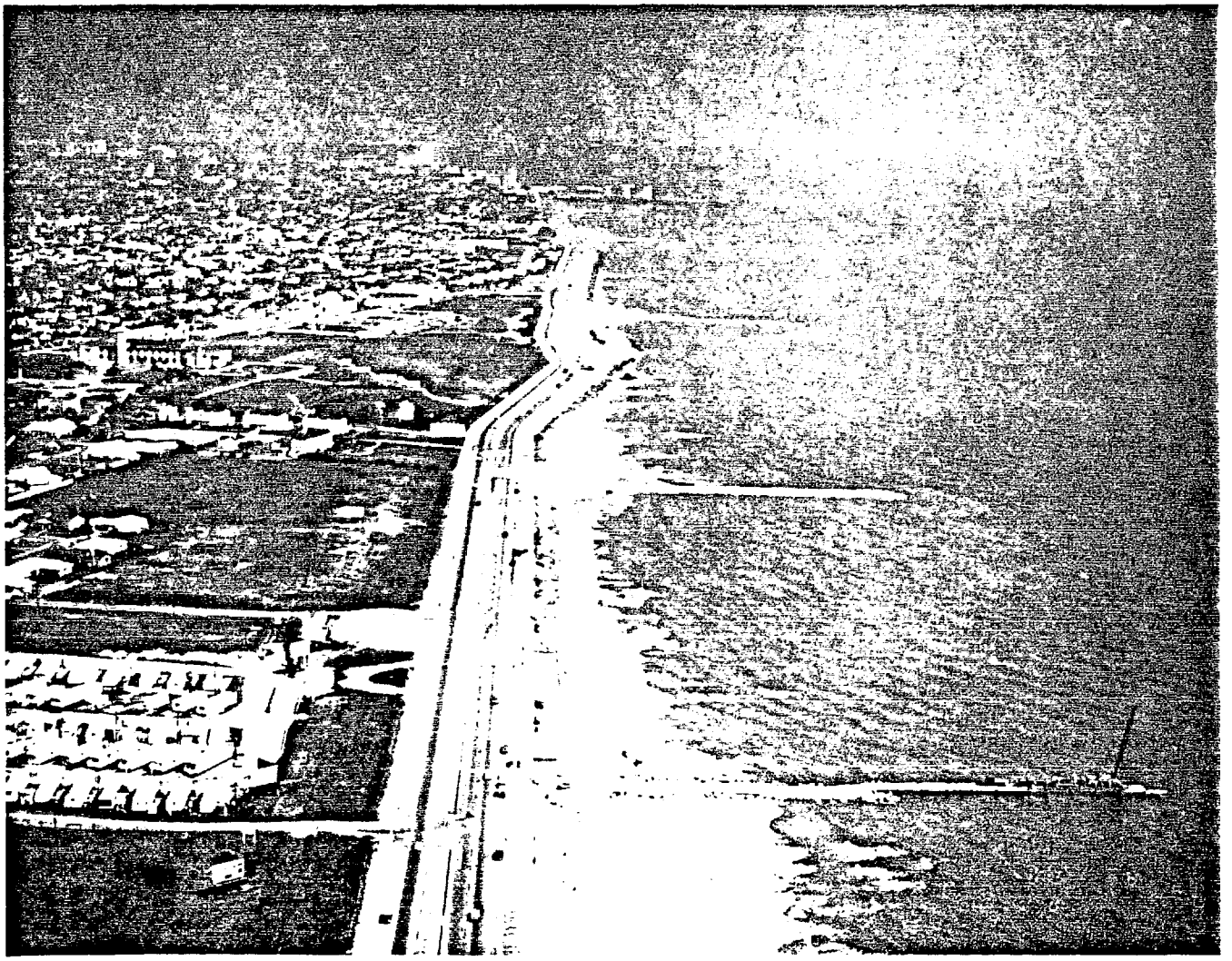

Fig. 1. Aerial view of Galveston Seawall and groin field, looking northeast. The seawall was constructed by the Corps of Engineers at various time intervals between 1902 and 1963.

TEXAS' PUBLIC TRUST DOCTRINE

The public trust doctrine—a common-law principle with antecedents in the Roman civil law[79]—is recognized and applied in Texas, although few appellate cases specifically discuss it in any detail.

With Texas' dual heritage of both the civil law (Spanish/Mexican and pre-1840 Republic) and the common law (post-1840), it is not surprising that an 1859 Texas Supreme Court decision embraced the public trust concept. Distinguishing between coastal land and the rest of the state's public domain, the court stated:

> "From the very nature of the property, which the government possesses in its navigable water, and bays, and bayshores, it can be ordinarily best appropriated, by devoting it to public use, and by not granting away exclusive right to it to any one."[80]

Later cases reiterated the state's public policy that lands beneath tidal waters are held in trust for the use and benefit of all the public.[81]

The proposed but rejected Texas Coastal Program would have recognized the compatibility of a wide spectrum of public uses of the lands and waters within the coastal zone. In the 1980 State Hearing Draft of the proposed plan it was implicit that the public trust doctrine is flexible enough for the coastal zone to provide "recreational areas . . . [a]nd access to bay and Gulf waters" and to serve as "important wildlife habitats" while also meeting "the needs of navigation and industry, including commercial . . . fisheries. . . ."[82]

Although the proposed Texas Coastal Program has been turned down, the state's Legislature has enacted various statutes based on the public trust doctrine.[83]

PUBLIC ACCESS RIGHTS

Texas legislators and courts have vigorously protected the public's rights of access to the state's sandy beaches and to tidal waters of the Gulf of Mexico, bays and estuaries.

In 1959 the Legislature enacted the Texas Open Beaches Act,[84] characterized as "the fundamental Legislative statement of the rights of the public on the beaches of Texas",[85] but criticized, "[i]n terms of pure substantive law," as having created "no rights in the public which did not previously exist under the common law."[86]

Some legal commentators conclude this act was passed because the 1958 *Luttes* Spanish/Mexican tidal

boundary decision[87] had precipitated the erection of fences, barricades, wooden pilings and other barriers across many of the state's beaches.[88] In the act, the Legislature ratified the application to beach access disputes of various legal theories that had evolved under the common law: prescription, dedication and custom.[89] More significantly, the act empowers the Texas attorney general and other public attorneys to file lawsuits protecting these public rights and seeking the removal of obstructions or barriers.[90]

The act clearly declares the public policy of Texas to be

> ". . . that the public . . . shall have the free and unrestricted *right of ingress and egress to and from the state-owned beaches bordering on the seaward shore of the Gulf of Mexico*, or *if* the public has acquired a right of use or easement to or over an area by prescription, dedication, or has retained a right by virtue of continuous right in the public, the public shall have the free and unrestricted *right of ingress and egress to the larger area extending from the line of mean low tide to the line of vegetation bordering on the Gulf of Mexico*."[91]

Another provision[92] states that in lawsuits under this act there are *prima facie* legal presumptions that, "in the area [landward] from mean low tide to the line of vegetation,"[93] the private littoral owner's "title . . . does not include the right to prevent the public from using the area for ingress and egress to the sea," and, "subject to proof of easement," there is "a prescriptive right or [public access] easement. . . ." As of this writing, no reported Texas Supreme Court case has squarely decided whether this provision is constitutional, but an intermediate appellate court has ruled the act is constitutional.[94]

not be construed as affecting in any way the title of the owners of land adjacent to any state-owned beach[96] bordering on the seaward shore of the Gulf of Mexico. . . ." The act does not apply to such protective structures as groins, seawalls and jetties erected or maintained by federal or state agencies.[97]

Texas appellate courts' recent decisions on beach access have favored the public over private littoral owners. In the 1964 case of *Seaway Co.* v. *Attorney General*,[98] the Houston Court of Civil Appeals held that there was sufficient evidence of nonpermissive public use of the West Beach of Galveston Island over a 200-year period to establish an implied dedication to the public by Seaway's predecessors in interest.[99]

In 1973 the same court approved a temporary injunction against a campground franchise holder that had built a fence obstructing public access to a beach on San Luis Island.[100] One commentator believes this decision "may precurse a rather liberal judicial construction of just which waters constitute the Gulf of Mexico for purposes of" applying the Open Beaches Act.[101]

PRIVATE LITTORAL RIGHTS

In general, Texas' private upland owners have rights of access to adjacent lands underlying the Gulf of Mexico and other tidal waters,[102] subject to the public rights protected under the Open Beaches Act[103] and the provisions of the Coastal Public Lands Management Act of 1973.[104]

The Open Beaches Act does *not* apply to (1) beaches not bordering on the open waters of the Gulf, (2) remote beaches on islands or peninsulas not accessible by public road or ferry, and (3) beaches over which no prescriptive or presumptive right has been established.[105] However, one legal commentator claims that the act "has created numerous problems for the littoral landowners and land developers" of uplands subject to the law.[106] Title policies for these upland owners are alleged to specifically exclude insurance against whatever rights the public may have under the act.[107]

The Coastal Public Lands Management Act of 1973 contains some language similar to that in the Open Beaches Act with respect to public rights.[108] To date, the appellate courts have not determined the Coastal Public Lands Management Act's impact on littoral owners' rights.

Private upland owners appear to have certain rights to build wharves and piers extending into tidal waters,[109] but the question of the state's power to regulate these structures remains clouded.[110] Indeed, although "[p]rivate use of coastal land has increased considerably . . .," uncertainty surrounds such questions as "the extent to which a landowner may use and develop the public beach for his private purposes [and] . . . the littoral rights of an owner of coastal property to use the State-owned land under tidal waters adjacent to his property."[111]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

Texas law empowers the School Land Board to lease "the portion of the Gulf of Mexico within the jurisdiction of the state" and "islands, saltwater lakes, bays, inlets, marshes, and reefs owned by the state within tidewater limits" for oil and gas production.[112] The board may also lease these lands for the production of coal, lignite, sulphur, salt and potash.[113]

B. Regulatory Functions

Numerous statutes embody a wide variety of regulatory schemes controlling and limiting the use of lands and waters within Texas' coastal zone. More than a dozen independent state agencies manage coastal resources.[114] Two of the management and regulatory functions of these agencies are particularly noteworthy.

The Coastal Public Lands Management Act of 1973[115] contains much of the law relating to the state's coastal public land management. The act articulates public policy goals (*e.g.*, preservation of natural resources, prevention of unauthorized use of coastal public lands).[116] Under the act, however, the School Land Board, with the assistance of the General Land Office's staff, "may issue permits authorizing limited continued use of previously unauthorized structures on coastal public land" under certain circumstances.[117]

Dune preservation along much of the Texas coast is the objective of one key regulatory package. Finding that sand dunes "provide a protective barrier for adja-

cent land and inland water and land against the action of sand, wind, and water",[118] the Legislature has authorized the commissioners courts in certain Gulf counties to "establish a *dune protection line* on the [barrier] island or peninsula for the purpose of preserving sand dunes that offer a defense against storm water and erosion . . ."[119] Unless a permit is obtained, the damaging, destruction or removal of a sand dune on a barrier island or peninsula seaward of an established dune protection line is prohibited.[120]

ACKNOWLEDGMENTS

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REFERENCES

1. History has helped shape the law of the coast in Texas, perhaps more than in most other states. After being colonists under the Mexican government that had succeeded earlier French and Spanish rulers, Texans revolted in 1835. In 1836 the insurgents formally declared their independence and ratified a Constitution for the newly proclaimed Republic of Texas. See 3 Tex. Const. Ann. 503-537 (Vernon 1955). The independent Republic followed the Spanish/Mexican version of the civil law until January 20, 1840, when the English common law was generally accepted as the rule of decision. 2 Laws, Rep. Tex. 177 (1840). On December 29, 1845, Texas, relinquishing its full independence, was annexed to the United States. Joint Resolution No. 1, 9 Stat. 108. But even after entering the Union, Texas continued to adhere to the Mexican system of mineral reservations in the sovereign. Legal principles from both the civil law and the common law are melded into Texas' current rules controlling tidal boundary determination, public access to the sea, and use of coastal lands and waters.
2. *State Hearing Draft, Texas Coastal Program* [hereinafter cited as SHD], 1, II-16-18, III-69-71, V-22-24 (September 1980). Much of Texas' oil and gas exploration and production takes place in the tide and submerged lands lying off its coast.
3. 86 Stat. 1280, 16 U.S.C. § 1451 *et seq.* For a brief discussion of CZMA, see *Shore and Beach*, Vol. 49, No. 1, January 1981, p. 18. CZMA was amended October 17, 1980, by the Coastal Zone Management Improvement Act of 1980, Pub. L. No. 96-464, 94 Stat. 2060 (1980).
4. Although the proposed Texas Coastal Program, as set forth in the well-prepared September 1980 State Hearing Draft (SHD, *supra*, note 2), will not be implemented. "Texas will continue to manage its coast in accordance with the responsibilities of the various state agencies having concerns in this area." Letter dated July 1, 1981, from William Mark Thompson, legal counsel, Natural Resources Division, Texas Energy and Natural Resources Advisory Council, to the author.
5. "The Texas coast extends 373 miles along the Gulf of Mexico from Louisiana to the border of Mexico. The shoreline continues 2,500 miles along islands, peninsulas, marshes, bays and estuaries." SHD, *supra*, note 2, at 1.
6. SHD, *supra*, note 2, at V-23.
7. In its proposed Texas Coastal Program, the state indicated its willingness to "refrain from placing additional special restrictions on energy facilities proposed for the coastal area" and "to encourage and accommodate installations and facilities related to exploration, development and production of energy resources; including offshore oil and gas, . . . " SHD, *supra*, note 2, at V-23.
8. Under the Submerged Lands Act, 67 Stat. 29, 43 U.S.C. § 1301 *et seq.*, the State of Texas has title to lands, including mineral deposits therein, beneath navigable waters seaward to 3 marine leagues (9 geographical miles) in the Gulf of Mexico; under the Outer Continental Shelf Lands (OCS) Act, 67 Stat. 462, 43 U.S.C. § 1331 *et seq.*, the United States may enter into mineral leases of OCS areas beyond the 3-marine-league limit. Texas has managed mineral interests in lands beneath its tidal water since 1913. SHD, *supra*, note 2, at 1.
9. Tex. Nat. Resources Code § 61.011 *et seq.* (formerly Tex. Rev. Civ. Stat. art. 5415d, §§ 1-6).
10. This classification is used for convenience and consistency with other articles in this series. However, the term *submerged lands* is often used in Texas statutes and case law and by Texas legal writers to mean both those two classes of land defined in this series as tidelands (lands lying between the lines of mean high and mean low water) and submerged lands (lands lying seaward of the line of mean low water).
11. SHD, *supra*, note 2, at V-4. Under the federal Coastal Zone Management Act of 1972 (CZMA), 86 Stat. 1280, 16 U.S.C. § 1453(a), the seaward limit of the coastal zone for CZMA funding purposes is not necessarily related to a state's legal seaward boundary. See note 32, *infra*, and accompanying text. The State of Texas is "no longer attempting to implement the proposals contained in the state hearing draft, (and) the federal grant for development of a Texas coastal program has been terminated." Letter dated July 1, 1981, *supra*, note 4.
12. Less than one-quarter, or about 100 miles, of Texas' Gulf Coast beach land is set aside as public park land; the rest is in private ownership. Comment, *The Texas Open Beaches Act: Public Rights to Beach Access*, 28 Baylor L. Rev. 383, 384 n. 4 (1976).
13. See note 84 *et seq.*, *infra*, and accompanying text regarding the Texas Open Beaches Act.
14. About one-half of Texas' coastal uplands was patented into private ownership before 1840, when the common law was adopted as the rule of decision for most purposes in Texas. W. Winters, *The Shoreline for Spanish and Mexican Grants in Texas*, 38 Tex. L. Rev. 523, 525 (1960). See also *Footprints on the Sands of Time: An Evaluation of the Texas Seashore*, Report of the Interim Beach Study Committee of the Texas Senate and House of Representatives [hereinafter cited as *Footprints*], 21 (2d printing 1970).
15. See "Determination of Tidal Boundaries," *infra*.
16. 9 Stat. 922, T.S. No. 207. This is similar to the effect of the treaty in California. For a brief discussion of California's Spanish and Mexican rancho grants and the issuance of confirmatory patents, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 20.
17. The State of Texas, as successor to the Kingdom of Spain, the Republic of Mexico and the Republic of Texas, is the owner of most of the tidelands within its borders. *Rosborough* v. *Picton*, 34 S.W. 791, 792 (Tex. Civ. App. 1896, *no writ*). When admitted to the Union, Texas retained ". . . all the vacant and unappropriated public lands lying within its limits. . . ." 2 Gammel, *Laws of Texas* 1225 (1898); 1 Sayles, *Early Laws of Texas* 568 (1888); Joint Resolution No. 8, March 1, 1845, 5 Stat. 797. Although Texas had been an independent nation, the Joint Resolution for the Admission of Texas into the Union expressly provided that the new state was admitted "on an equal footing with the original States in all respects whatever." Joint Resolution No. 1, Dec. 29, 1845, 9 Stat. 108. Arguably, this provides Texas with another, though seemingly unnecessary, basis for asserting title to tidelands. See P. Daniel, *Texas' Title to Submerged Lands*, 1 Baylor L. Rev. 237, 241-247 (1949). (For a brief discussion of the equal-footing doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.) However, under a state law, Texas' title to certain tidelands was conveyed to some municipalities with more than 40,000 residents in 1920. *Maufrais* v. *State*, 142 Tex. 559, 180 S.W. 2d 144 (1944); Tex.Rev.Civ.Stat. art. 7467(a) (1925). Another law enables cities bordering on the Gulf of Mexico and having a population of more than 60,000 to use and occupy tidelands for park purposes. Tex.Rev.Civ.Stat. art. 6081g. In addition, special laws have relinquished the state's title to some local entities, *e.g.*, Tex.Rev.Civ.Stat. art. 5421j (filled-in land in Corpus Christi). Formerly, navigation districts could purchase tidelands from the state and then resell them to private parties. See *Footprints*, *supra*, note 14, at 43. Other tidelands have been conveyed into private ownership by the Texas Legislature, but until early in this century the executive branch of both the Republic and the state did not grant such lands although the Texas General Land Office had begun disposing of other public lands in 1837. *Footprints*, *supra*, note 14, at 7. Later, the land commissioner was authorized

"to sell . . . coastal lands to private interests for specific purposes." *Id.* at 9.

18. See "Determination of Tidal Boundaries," *infra*.
19. Tex. Water Code § 11.021(a) (1980 supp.)
20. Tex. Nat. Resources Code §§32.001, 32.011 *et seq.*, 32.061, 32.062, 33.011, 33.051, 33.052 *et seq.* The commissioner of the General Land Office is chairman of the School Land Board, and the governor and the attorney general each appoint one member to the board. Tex. Nat. Resources Code §§ 32.012(a), (b), 32.014.
21. Tex. Nat. Resources Code §§ 32.001, 33.012.
22. Tex. Nat. Resources Code § 33.001 *et seq.*; SHD, *supra*, note 2, at I-8-9.
23. 1 Laws, Rep. Tex. 133 (1838).
24. Daniel, *supra*, note 17, 1 Baylor L.Rev. at 243.
25. Joint Resolution No. 1, Dec. 29, 1845, 9 Stat. 108. See also Daniel, *supra*, note 17, 1 Baylor L.Rev. at 245.
26. Tex. 1845 Const., art. VII, § 20.
27. However, the U.S. Supreme Court ruled in 1950 that under the "equal-footing clause" in the Dec. 29, 1845, Joint Resolution, *supra*, notes 1 and 17, Texas had relinquished to the United States the new state's mineral rights in submerged lands. See case cited in note 32, *infra*, and accompanying text.
28. 9 Stat. 922, T.S. No. 207.
29. 10 Stat. 1031, T.S. No. 208.
30. Daniel, *supra*, note 17, 1 Baylor L.Rev. at 246.
31. For a brief discussion of these cases, see *Shore and Beach*, Vol. 49, No. 1, January 1981, p. 17.
32. *United States* v. *Texas*, 339 U.S. 707, 712-720 (1950).
33. 67 Stat. 29, 43 U.S.C. § 1301 *et seq.* The act's constitutionality was subsequently upheld in *Alabama* v. *Texas*, 347 U.S. 272 (1954).
34. SHD, *supra*, note 2, at V-4. See *United States* v. *Louisiana*, 364 U.S. 502 (1960). See also Tex. Nat. Resources Code § 11.012.
35. *Luttes* v. *State*, 159 Tex. 500, 324 S.W.2d 167 (1958), *aff'd on rehearing*, 328 S.W.2d 920 (Tex.Civ.App.—Waco 1959). For detailed discussions of *Luttes*, see, *e.g.*, *Footprints*, *supra*, note 14, at 22-23; C. Dinkins, *Texas Seashore Boundary Law: The Effect of Natural and Artificial Modifications*, 10 Houston L. Rev. 43, 44-45, 48-49 (1972); K. Roberts, *The Luttes Case—Locating the Boundary of the Seashore*, 12 Baylor L. Rev. 141-143, 146, 151-152, 156-158, 161-168 (1960); W. Winters, Jr., *The Shoreline for Spanish and Mexican Grants in Texas*, 38 Tex. L.Rev. 523, 525, 527-531, 534-537 (1960); Recent Decisions, *Navigable Waters — Most Reliable System in Shoreline Determination Is the Use of 'Mean High Tide,'* 5 S. Tex. L.J. 213-214 (1960).
36. *Rudder* v. *Pender*, 156 Tex. 185, 293 S.W.2d 736 (1956). For detailed discussions of *Rudder* and other Texas case law concerning the seaward boundary of post-1840 upland grants, see, *e.g.*, *Footprints*, *supra*, note 14, at 22-23; Dinkins, *supra*, note 35, 10 Houston L. Rev. at 43-46; Roberts, *supra*, note 35, 12 Baylor L. Rev. at 143, 153-156, 158-159, 163; Winters, *supra*, note 35, 38 Tex. L. Rev. at 525, 527; Recent Decisions, *supra*, note 35, 5 S. Tex. L.J. at 213.
37. Before the 1958 *Luttes* decisin, the Texas Supreme Court had held that private ownership of Padre Island, even though derived from a Spanish grant, was bounded by the line of "mean high tide." *State* v. *Balli*, 144 Tex. 195, 190 S.W.2d 71 (1944), *cert. denied*, 328 U.S. 852 (1946). Because of *Balli* and other pre-*Luttes* cases, one prominent legal writer states: "The Texas coast line as such should be distinguished from the Gulf of Mexico beaches. . . . Litigation previously established the line of mean high tide for Padre Island, a Spanish land grant. Thus, treating the boundry [*sic*] of Padre Island as being previously established, it appears that no more than approximately 20% of the Gulf beaches are bordered by Mexican and Spanish grants affected by the Luttes decision." Roberts, *supra*, note 35, 12 Baylor L. Rev. at 141 n.2. But the same author points out that the court in the *Luttes* opinion "stated that while the *Balli* case was controlling for Padre Island, it could not be controlling on the general boundary question since the proper location of the boundary line under Spanish law was not the real issue before the court in the *Balli* case." *Id.* at 160. Another authority believes that *Luttes* was the first Texas case to hold directly and expressly "that the boundaries of tracts granted prior to the Republic [or, more precisely, before January 20, 1840, when Texas adopted the common law] were determined by civil law." Dinkins, *supra*, note 35, 10 Houston L. Rev. at 44 (note omitted; bracketed matter added). In any event, the effect of *Luttes* is widespread, ranging from Roberts' estimate of 20% of the Gulf shore to an assertion that "[a]pproximately one-half of the Texas littoral was titled" before the 1840 adoption of the common law, and thus presumably governed by civil-law principles. Winters, *supra*, note 35, 38 Tex. L. Rev. at 525, 528-530.
38. For a brief discussion of the civil-law rule, see *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 17.
39. For a brief discussion of the English common-law rule, see *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 17.
40. For an explanation of the relevant Florida Constitution and Coastal Mapping Act language, see *Shore and Beach*, Vol. 49, No. 3, July 1981, pp. 13-14, and accompanying references.
41. 159 Tex. 500, 324 S.W.2d 167 (1958), *aff'd on rehearing*, 328 S.W.2d 920 (Tex.Civ.App.—Waco 1959).
42. 156 Tex. 185, 293 S.W. 2d 736 (1956).
43. 296 U.S. 10 (1935). For a brief discussion of *Borax*, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18.
44. *Footprints*, *supra*, note 14, at 21.
45. *City of Galveston* v. *Menard*, 23 Tex. 349, 398 (1859). This language was unnecessary to the decision (*i.e.*, dictum), but "became recognized as the rule in Texas, and . . . was repeated — again as dicta — in a number of cases." *Footprints*, *supra*, note 14, at 22.
46. 144 Tex. 195, 190 S.W.2d 71 (1944), *cert. denied*, 328 U.S. 852 (1946).
47. *Footprints*, *supra*, note 14, at 22.
48. *Ibid.* See also legal commentators' views on *Balli*, *supra*, note 37.
49. 190 F.2d 191 (5th Cir. 1951), *cert. denied*, 342 U.S. 920 (1952).
50. The *Partidas*, compiled in Spain circa 1263, "acquired the force of law . . . at Toledo in A.D. 1505. . . . [T]he *Partidas*, except as modified by the King, was the basic law of Spain and Mexico" until adoption of the 19th-century civil codes. Winters, *supra*, note 35, 38 Tex. L. Rev. at 528 n. 37. A scholar translates the definition of the seashore in Partida 3, Title 28, Law 4 (López ed.) as "'all that space. . . covered by the water of the sea at its *highest tide* during the entire year, be it in winter or in summer.'" *Id.* at 528 (emphasis in original). See also other translations cited at 528 n. 40.
51. One case translates the ancient Justinian definition as follows: "'. . . the shore of the sea in the fourth quarter or winter is where the highest wave extends.'" Winters, *supra*, note 35, 38 Tex. L. Rev. at 528 n. 34.
52. 159 Tex. at 531, 324 S.W.2d at 187 (emphasis added).
53. *Ibid.*
54. 159 Tex. at 537, 324 S.W.2d at 191 (emphasis added).
55. *Ibid.* (emphasis added).
56. See, *e.g.*, *Footprints*, *supra*, note 14, at 22-23 (*Luttes* "virtually eliminated the distinction between the common law rule . . . and the Mexican or Spanish rule," because the "vertical difference between the [datums of mean higher high water and mean high water] along the Texas coast varies from zero to 0.1 foot"); Roberts, *supra*, note 35, 12 Baylor L. Rev. at 151 ("The difference between [the datums of] mean high tide and mean higher high tide in Texas is generally small, and in many inland bays they are identical"); Winters, *supra*, note 35, 38 Tex. L. Rev. at 530.
57. Winters, *supra*, note 35, 38 Tex. L. Rev. at 530 (emphasis added).
58. *Footprints*, *supra*, note 14, at 22 (emphasis added). See also Roberts, *supra*, note 35, 12 Baylor L. Rev. at 156.
59. 156 Tex. 185, 293 S.W.2d 736 (1956). The court, however, did not expressly cite the *Borax* decision in its majority opinion, although *Borax* was referred to in the dissenting opinion.
60. 156 Tex. at 193, 293 S.W.2d at 741.
61. See *Footprints*, *supra*, note 14, at 23-24; Dinkins, *supra*, note 35, 10 Houston L. Rev. at 46-52; Roberts, *supra*, note 35, 12 Baylor L. Rev. at 169-172; Winters, *supra*, note 35, 38 Tex. L. Rev. at 532-536.
62. See *Footprints*, *supra*, note 14, at 23-24; Dinkins, *supra*, note 35, 10 Houston L. Rev. at 47-48; Roberts, *supra*, note 35, 12 Baylor L. Rev. at 169-172; Winters, *supra*, note 35, 38 Tex. L. Rev. at 530-536.
63. For a brief discussion of California's artificial accretion doctrine, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 22.
64. 159 Tex. at 540, 324 S.W. 2d at 193.
65. *Lorino* v. *Crawford Packing Co.*, 142 Tex. 51, 175 S.W. 2d 410 (1943).
66. Dinkins, *supra*, note 35, 10 Houston L. Rev. at 47.
67. *Giles* v. *Basore*, 154 Tex. 366, 278 S.W.2d 830 (1955).
68. Roberts, *supra*, note 35, 12 Baylor L. Rev. at 171 (emphasis in original). See also *Footprints*, *supra*, note 14, at 23-24.
69. SHD, *supra*, note 2, at II-14.
70. N. E. Parker, "Barrier Islands, Beaches, and Coastal Engineers," *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 4, 6 (reference omitted).

The Law of the Coast in a Clamshell*

Part VI: The Massachusetts Approach

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A delicate balance between public and private rights — first struck in early colonial days —lies at the heart of the law of the coast in Massachusetts.

In 1641 the Massachusetts Bay Colony deemed the public's right to fish in tidal waters so vital that this right was incorporated in the colony's original Body of Liberties.[1] Yet only six years later, to encourage littoral owners to build wharves, the colony extended private upland titles to embrace adjacent tidelands, even though reserving public navigational rights.[2]

This balance between conflicting public and private rights in the 1,200 miles[3] of the Massachusetts coast is reflected in the Bay State's contemporary legal approach to the coastal zone.

On the one hand, for example, the Commonwealth of Massachusetts was the first state in the Union to enact a statute to protect coastal wetlands[4] and the first Atlantic Coast state to boast a federally approved coastal zone management program.[5]

But on the other hand, public beach access is relatively restricted in Massachusetts, and recent efforts to increase it have been thwarted, partly because of the 1647 grant of much of the seashore into private ownership.[6]

TITLE TO LANDS WITHIN THE COASTAL ZONE

The lands and waters within what is now the Commonwealth of Massachusetts were claimed by the English crown by right of discovery.[7] Title to the area within the present state boundaries was transferred by grants from James I and Charles II to the companies chartered to colonize Plymouth and Massachusetts Bay Colonies. These companies and the various colonial governments in turn granted much of the lands into private ownership. On July 4, 1776, upon the signing of the Declaration of Independence, Massachusetts became a sovereign state and the owner, in trust, of previously ungranted lands under navigable waters, including tidelands.[8]

Under the Massachusetts Coastal Zone Management Program, the state's coastal zone encompasses lands and waters from the seaward limit of its territorial sea "landward to 100 feet inland of specified major roads, rail lines, or other visible rights-of-way."[9] The zone includes all of Cape Cod, Martha's Vineyard and Nantucket as well as all coastal wetlands.[10]

These coastal zone lands may be divided into uplands, tidelands and submerged lands.[11]

A. Uplands

Most Massachusetts coastal zone uplands are privately owned, with titles stretching back to early colonial grants. However, privately held coastal wetlands, such as swamps and marshes, are subject to broad state and local regulation.[12]

B. Tidelands

In Massachusetts, unlike most other coastal states, private parties' upland titles generally extend waterward to include the adjoining tidelands.[13] This reflects a departure from the English common law. In England, at the time the colonization of America began, the concept that the crown owns the tidelands was gaining acceptance.[14]

Massachusetts' divergence from the English common law can be traced to the colonial ordinance of 1647.[15] Before then, in general, grants were limited to the line of high water.[16] In 1810 the state's Supreme Judicial Court said the object of the ordinance was to encourage upland owners to erect wharves, because they were necessary for commerce and the colony could not build them at public expense.[17]

Contrary to some recent judicial decisions in other states, the Massachusetts courts have continued to view the public's rights in tidelands as limited. In 1974 the state's highest court favorably cited early decisions that "a littoral owner may build on his tidal land so as to exclude the public completely as long as he does not unreasonably interfere with navigation."[18]

C. Submerged Lands

The Submerged Lands Act of 1953[19] confirmed Massachusetts' ownership of submerged lands seaward to 3 geographical miles from the coast.

In 1975, however, the U.S. Supreme Court rejected the contention of Massachusetts and other Atlantic Coast states that each of them had "the exclusive right

This is the sixth in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes aspects of the statutory and case law of the Commonwealth of Massachusetts concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California.
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of dominion and control over the seabed underlying the Atlantic Ocean seaward from its coastline to the limits of the jurisdiction of the United States," including the area beyond the 3-mile limit.[20]

The commonwealth has granted some submerged lands into private ownership, but the Massachusetts Supreme Judicial Court stated in 1979 that such grants can be made "only to fulfill a public purpose, and that the rights of the grantee to that land are ended when that purpose is extinguished."[21]

In the case, which involved statutes allowing the extension of wharves in Boston Harbor,[22] a development corporation, as the grantee's successor, had converted a portion of the property seaward of the historic extreme low-water mark into shops, offices, restaurants and condominiums. The court held that the corporation's title to the disputed property was subject to the condition that it be used for the public purpose for which it was granted, such as a wharf or warehouse.[23] This decision has many ramifications and has prompted the introduction of proposed legislation to terminate the state's "vestigial rights" in such lands.[24]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Although the "line of extreme low tide" generally constitutes the property boundary between public and private lands within Massachusetts' coastal zone, some cases suggest that upland parcels originally granted before the colonial ordinance of 1647 may extend seaward only to the line of high water.[25]

In other instances, such as when an upland parcel is described as being bounded "by the beach," or when the upland and adjacent flats are separately deeded, the "ordinary high-water mark" is the legal boundary.[26] The courts appear to follow the 1854 English common-law rule,[27] which in effect equates the legal word "ordinary" with the technical term "mean," in defining the ordinary high-water mark.[28]

For regulatory purposes, as distinguished from property boundaries, the commonwealth follows the National Ocean Survey's practice of defining "high water mark" in terms of a 19-year mean of all the high waters.[29]

B. Tideland/Submerged Land Boundary

In 1647 the Massachusetts Bay Colony adopted the ordinance that changed the prior law limiting private upland ownership to the line of high water.[30] The ordinance, as published in 1649, provided in part:

> ". . .[I]t is declared that in all creeks, coves and other places, about and upon salt water where the Sea ebs and flows, the Proprietor of the land adjoyning shall have propertie to the low water mark where the Sea does not ebb above a hundred rods, and not more wheresoever it ebs farther . . ."[31]

The term "low water mark," as used in this colonial ordinance, has been interpreted by the courts as meaning the "lowest ebb of the tide from natural causes" and the "extreme low water mark."[32] However, that line cannot be more than 100 rods — or 1,650 feet — seaward of the line of mean high water because of the qualifying language in the ordinance.

Historically, Massachusetts has had considerable litigation regarding the division of flats, or tidelands, among adjoining private owners. Besides the basic principle that an owner should have a fair and proportionate share of flats in front of his upland, the courts have developed a number of rules to apply to the division of flats where there are sinuosities in the shoreline.[33]

There is a statutory scheme providing for the land court's determination of the boundaries of flats, although the decision does not bind the state unless it consents to becoming a party.[34]

C. Legal Effect of Physical Changes in the Location of the Shoreline

Generally, under Massachusetts law, the legal boundary between publicly and privately owned lands —whether the ordinary high-water mark or the extreme low-water mark — shifts with accretion and erosion.[35]

In one interesting case, an artificially created beach was formed seaward of a seawall built by the owners of summer homes fronting on Wild Harbor in Falmouth. Although the state had created and maintained the new beach by dredging and pumping sand from the floor of the harbor and by building jetties, the Massachusetts Supreme Judicial Court held that title to the artificial beach was in the homeowners, subject to certain public rights.[36]

The 1978 Massachusetts Coastal Zone Management Program, noting numerous points of critical erosion along the commonwealth's coastline,[37] emphasizes "the use of non-structural measures where feasible" to protect against erosion.[38] The program favors such measures as beach nourishment and dune rebuilding, especially in such areas as barrier beaches, but notes that structural solutions to erosion problems "are probably more appropriate to urban areas."[39]

The program recognizes that existing ports and harbors, already safeguarded from hazards by bulkheads and other protective works, are extremely valuable, and that their use should be maximized rather than creating new harbor facilities.[40]

New Bedford Harbor furnishes an example of an existing harbor with protective works. The New Bedford, Fairhaven and Acushnet Hurricane Barrier (Fig. 1), built by the U.S. Army Corps of Engineers in 1962-66, protects about 1,400 acres of commercial and industrial land and the adjoining waterfront areas. The barrier includes 4.75 miles of dikes in three separate sections, pumps, and a 150-foot-wide navigation gate.

MASSACHUSETTS' PUBLIC TRUST DOCTRINE

With some limitations presumably dictated by the early colonial laws, Massachusetts recognizes the public trust doctrine — the common-law concept that the public is entitled to use tidal waters irrespective of whether the underlying lands are publicly or privately owned.

The Massachusetts Bay Colony's ordinance of 1641,

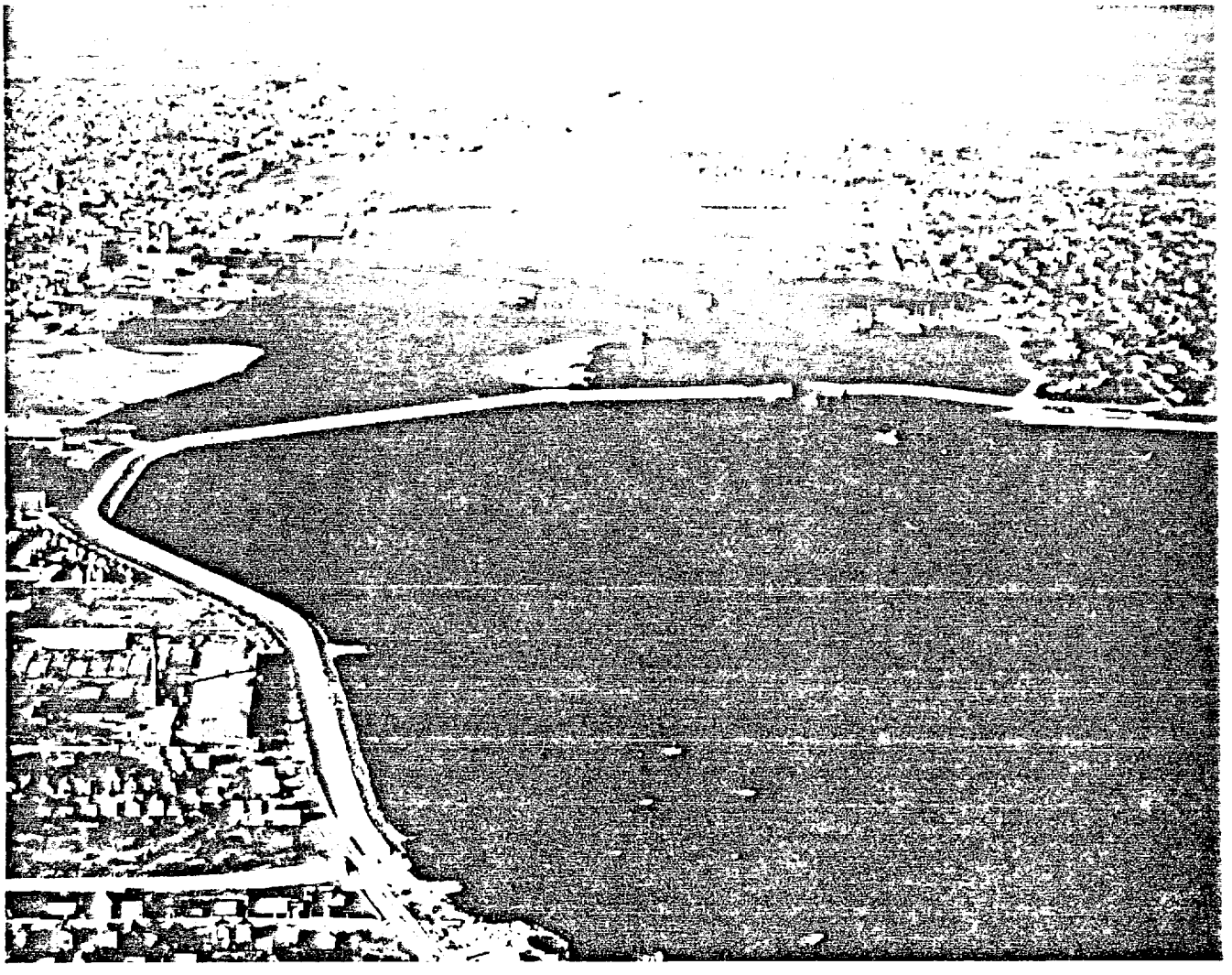

Fig. 1. Hurricane barrier across the mouth of New Bedford Harbor protects that city (left) and the neighboring communities of Fairhaven and Acushnet in southeastern Massachusetts. (Photography by New England Division, Department of the Army Corps of Engineers)

included in the colony's original Body of Liberties, provided in part:

> "Every Inhabitant that is an howse holder shall have free fishing and fowling in any great ponds and Bayes, Coves and Rivers, so farre as the sea ebbes and flowes within the presincts of the towne where they dwell unlesse the free men of the same Towne or the Generall Court have otherwise appropriated them. . . ."[41]

Although the colony six years later extended private upland ownership to the low-water line or 100 rods, whichever was more landward,[42] the public, in general, has expressly reserved rights of navigation, fishing and fowling in privately held shorelands.

However, the Massachusetts courts have construed the public trust in tidelands rather narrowly. For example, cases hold the private upland owners may fill or build within these tidelands even though this restricts the public's use to some extent.[43] The judicial rationale is that the ordinance of 1647, which modified the ordinance of 1641, "is properly construed as granting the benefitted owners a fee [title] in the seashore to the extent described and subject to the public rights reserved."[44]

The court's comparatively narrow interpretation of the scope of the public trust is shown in a 1907 decision holding that the public may not bathe at otherwise private beaches:

> ". . . We think that there is a right to swim or float in or upon public waters as well as to sail upon them. But we do not think that this includes a right to use for bathing purposes, as these words are commonly understood, that part of the beach or shore above low-water mark, where the distance to high-water mark does not exceed one hundred rods, whether covered with water or not . . ."[45]

The commonwealth's legislative and executive branches have taken a more expansive view of the public trust doctrine.[46]

PUBLIC ACCESS RIGHTS

Because of widespread private ownership of tidelands, public access to the shoreline has been relatively limited in Massachusetts. Despite recent legislative efforts to expand access rights, the commonwealth's Supreme Judicial Court, unlike some other coastal states' highest courts, has been reluctant to approve greater public access.

Erratum in "Part V: The Texas Approach"

A line was inadvertently omitted in the last article in this series, "The Law of the Coast in a Clamshell: Part V: The Texas Approach," *Shore & Beach*, Vol. 49, No. 4, October 1981, pp. 24-31.

Page 28, 6th paragraph under "Public Access Rights" should read as follows:

> Moreover, the act expressly provides[95] that it "shall not be construed as affecting in any way the title of the owners of land adjacent to any state-owned beach[96] bordering on the seaward shore of the Gulf of Mexico . . . ." The act does not apply to such protective structures as groins, seawalls and jetties erected or maintained by federal or state agencies.[97]

In 1974 the Massachusetts court's justices were asked for an advisory opinion[47] by the state's House of Representatives as to the constitutionality of a bill recognizing "a public on-foot free right-of-passage" along the shore.[48] All but one of the justices on the court concluded that the proposed law would violate both federal and state constitutional provisions requiring payment of fair compensation when private property is taken for a public purpose.[49]

The justices stated that an "'on-foot right-of-passage' is not . . . related" to the rights of fishing, fowling and navigation reserved to the public by the colonial ordinance.[50] They flatly said: "We are unable to find any authority that the rights of the public include the right to walk on the beach."[51]

Rejecting the argument that public uses of the seashore "change with time and now must be deemed to include the important public interest in recreation," the justices stated:

> ". . .[T]he grant to private parties effected by the colonial ordinance has never been interpreted to provide the littoral owners only such uncertain and ephemeral rights as would result from such an interpretation. The rights of the public . .. have . . . been strictly confined to these well defined areas . . . ."[52]

The Massachusetts justices thus declined to expand the public trust doctrine to encompass beach recreational use, contrary to the position taken by the courts in California[53] and New Jersey.[54].

As one legal commentator who analyzed the opinion says, it "indicates that there is no easy way to increase public access to beaches in Massachusetts."[55] Among approaches he suggests are "outright purchase of selected beach sites," the encouragement of "[g]ifts or dedications of private beaches to the public . . . by offering . . . tax incentives" and "[c]ompulsory dedications [by subdividers] of beaches or access to existing public beaches."[56]

The Massachusetts Coastal Zone Management Program expressly calls for improving public access to coastal recreation facilities and providing "technical assistance to developers of private recreational facilities and sites that increase public access to the shoreline."[57]

PRIVATE LITTORAL RIGHTS

The colonial ordinance of 1647, granting title to tidelands to private upland owners, has had a great influence on Massachusetts law relating to private littoral rights. The commonwealth's highest tribunal has repeatedly stressed the purpose of the ordinance, saying, for example, that it was "designed to encourage the development of private means of access to the sea."[58]

Nevertheless, the court has upheld the state's authority to cut off a littoral owner's exclusive right of access to tidal waters where the public project is directly in aid of navigation,[59] as distinguished from a project only incidentally related to navigation.[60]

Since at least 1866, filling activities by private owners of uplands and adjoining flats have been regulated by the state.[61] Similarly, wharfing-out rights are subject to governmental restrictions.[62]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

Massachusetts law authorizes the director of the division of mineral resources within the Department of Environmental Quality Engineering to (1) license the "orderly exploration" for oil, gas and other mineral resources[63] within the state's "coastal waters"[64] and underlying lands, and (2) "lease exclusive rights for extraction of such mineral resources as have been discovered."[65]

B. Regulatory Functions

"[I]n 1963, Massachusetts became the first state in the nation to protect wetlands by statute."[66] The present Wetlands Protection Act[67] prohibits the filling, dredging or other altering of wetlands, beaches, dunes and flats unless a permit is obtained from the local conservation commission. Regulations issued by the state's Department of Environmental Quality Engineering "define key [statutory] terms and establish a framework for local decision making and appeals to the state agency."[68]

Various other Massachusetts statutes and regulations govern use of tide and submerged lands. Under the Coastal Wetlands Restriction Act, the commissioner of environmental management may "adopt, amend, modify or repeal orders regulating, restricting or prohibiting dredging, filling, removing or other altering, or polluting, coastal wetlands."[69] The Department of Environmental Quality Engineering administers the Waterways Permit and License Program, which requires licenses for such work as "the construction or extension of a wharf, pier, dam, sea wall . . . or other structure, or for the filling of land or flats."[70] The commissioner of the department has issued regulations governing the granting of waterways licenses and permits.

In addition to these state-level statutes and regulations, many coastal municipalities exercise local control under zoning laws and bylaws. In 1979 the state's highest court decided that a town is not preempted by state law from enacting a wetlands protection bylaw.[71]

The Massachusetts Coastal Zone Management Program was the first such program on the Atlantic Coast to gain formal federal approval. The program, as approved in April 1978, expressly intends "to rely solely on existing statutory authority."[72] Massachusetts thus follows a different course than California, which established a new coastal land-use management agency.

The program is administered by the Executive Office of Environmental Affairs,[78] whose secretary has issued CZM regulations to implement the program. Twenty-seven policies are set forth in the program, ranging from energy issues to the protection of "ecologically significant resource areas (salt marshes, . . . barrier beaches, and salt ponds) for their contributions to marine productivity and value as natural habitats and storm buffers."[74]

ACKNOWLEDGMENTS

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REFERENCES

1. The Massachusetts Bay Colony, by its 1629 royal charter, had the "power . . . to make laws for its settlements 'so as such laws and ordinances be not contrary or repugnant to the laws and statutes of this our realm of England.'" 1 R. Powell, *The Law of Real Property* ¶ 50 at 126 (Rev. ed. 1977). The Body of Liberties, enacted by the colony's lawmakers, included what is referred to as the colonial ordinance of 1641 protecting the rights of fishing and fowling (or hunting birds). For the text of this ordinance, see "Massachusetts' Public Trust Doctrine," *infra*. (The term "ordinance" was then used to mean a general law or statute.)
2. In 1647 the colonial ordinance of 1641 was amended to provide that littoral owners' titles, which had ended at the line of high water, were extended seaward to the low-water mark or to 100 rods (1,650 feet) beyond the high-water mark, whichever was more landward. The law, as amended, is frequently referred to as the "1641-1647 ordinance." However, the ordinance of 1647 is treated in this article separately from the ordinance of 1641. This is consistent with the Massachusetts Supreme Judicial Court's discussion in *Boston Waterfront Development Corp.* v. *Commonwealth*, 79 Mass. Adv. Sh. 1992, 393 N.E.2d 356 (1979). For the text of the colonial ordinance of 1647, see "Determination of Tidal Boundaries," *infra*.
3. *Massachusetts Coastal Zone Management Program and Final Environmental Impact Statement* [hereinafter cited as MCZMP] 2 (1978).
4. See "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*. The first statute was enacted in 1963.
5. The Massachusetts Coastal Zone Management Program was prepared pursuant to the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq*. The program was approved by the federal government in April 1978.
6. The justices of the Massachusetts Supreme Judicial Court, in an advisory opinion, ruled that a bill declaring a public "on-foot free right-of-passage" along the seashore was unconstitutional. *Opinion of the Justices*, 365 Mass. 681, 313 N.E.2d 561 (1974). The bill and this opinion are discussed under "Public Access Rights," *infra*. For a brief explanation of advisory opinions in Massachusetts, see note 47, *infra*.
7. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842); *Commonwealth* v. *City of Roxbury*, 75 Mass. (9 Gray) 451, 478 (1857). See also Comment, *Boston Waterfront Development Corporation* v. *Commonwealth: Title to Land Seaward of the Historic Low-Water Line*, 16 New Eng. L.Rev. 109, 115-117 (1980).
8. *Commonwealth* v. *Alger*, 61 Mass. (7 Cush.) 53, 82, 93 (1853). See also *Shively* v. *Bowlby*, 152 U.S. 1, 14-15 (1894); *Martin* v. *Waddell*, *supra*, 41 U.S. (16 Pet.) 367, 410.
9. MCZMP, *supra*, note 3, at 14.
10. *Ibid*.
11. This classification is used for convenience and consistency with other articles in this series. Massachusetts law often uses the term *flats* as a synonym for tidelands. In this series, tidelands have been defined as extending to the line of mean low water. However, as is pointed out under "Determination of Tidal Boundaries," *infra*, the "extreme low tide," in general, is the seaward limit of tidelands in private ownership in Massachusetts.
12. A full discussion of state and local regulation of coastal wetlands is beyond the scope of this article. However, the Massachusetts law is briefly summarized under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
13. For more detailed discussions of the Massachusetts law concerning private ownership of tidelands, see M. Frankel, *Law of Seashore Waters and Water Courses, Maine and Massachusetts* (1969); J. Whittlesey, *Law of the Seashore, Tidewaters and Great Ponds in Massachusetts and Maine* (1932); Comment, *supra*, note 7, 16 New Eng. L. Rev. at 115-117; Note, *Coastal Wetlands in New England*, 52 Boston U.L.Rev. 724, 732, 753-754 (1972).
14. For a brief discussion of the development of the English common law, see the first article in this series, *Shore & Beach*, Vol. 48, No. 4, October 1980, p. 15.
15. Under this Massachusetts Bay Colony ordinance, which is discussed under "Determination of Tidal Boundaries" and "Massachusetts' Public Trust Doctrine," *infra*, grantees of littoral lands by the colonial government were vested with title to tidelands subject to certain reserved public rights. After 1692, the ordinance was applied to all parts of Massachusetts, including the then province of Maine and territories that had been within the Plymouth charter. *Commonwealth* v. *Alger*, *supra*, 61 Mass. (7 Cush.) 53, 76.
16. *Id.* at 69-70. However, there had been some earlier grants of tidelands. For example, a grant of the flats near Noddle's Island (East Boston) had been made as early as 1840. See *Commonwealth* v. *City of Roxbury*, *supra*, 75 Mass. (9 Gray) 451, 495.
17. *Storer* v. *Freeman*, 6 Mass (6 Tyng) 435, 438 (1810). The case referred to the ordinance as having "force as our common law," even though it was subsequently annulled. *Ibid*.
18. *Opinion of the Justices*, *supra*, 365 Mass. 681, 687, 313 N.E.2d 561, 566.
19. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq*.
20. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975). The court relied on its earlier decisions in *United States* v. *Louisiana*, 339 U.S. 699 (1950); and *United States* v. *Texas*, 339 U.S. 707 (1950).
21. *Boston Waterfront Development Corp.* v. *Commonwealth*, *supra*, 393 N.E.2d 356, 367.
22. At issue were the three so-called Lewis Wharf statutes passed in 1832, 1834 and 1835. "This series of statutes was but one of a multitude of similar acts passed in the [early 19th century] granting various [private] parties wharf privileges in Boston Harbor." *Id.*, 393 N.E.2d at 361.
23. *Id.*, 393 N.E.2d at 369.
24. Comment, *supra*, note 7, 16 New Eng. L.Rev. at 109-110, 131-133. Proposed legislation (Mass. S. No. 1001 (1981), Mass. H. No. 658 (1981)) has been introduced, but to date not passed, which would permit the termination of the commonwealth's "vestigial rights" in certain Boston waterfront lands. In June 1981 the justices of the Supreme Judicial Court answered some of the questions concerning these two bills submitted by the two legislative houses. Space does not permit a discussion of the advisory opinions, but the justices did state that they believed "the Legislature has authority to surrender any so-called vestigial or residual public rights in lawfully filled, formerly submerged, land." See Mass. S. No. 2252, slip op. at 8-9 (June 18, 1981).
25. *Boston* v. *Richardson*, 105 Mass. 351, 353, 359-360 (1870); *Tappan* v. *Burnham*, 90 Mass. (8 Allen) 65, 71-72 (1864). However in *Commonwealth* v. *City of Roxbury*, *supra*, 75 Mass. (9 Gray) 451, 491, 496-498, 503, it is stated that if a grant preceded the colonial ordinance, the passage of that law operated to "annex" the adjacent flats to the upland, providing the grant clearly had been bounded by the sea.
26. *Litchfield* v. *Scituate*, 136 Mass. 38, 48-49 (1883); *Niles* v. *Patch*, 79 Mass. (13 Gray) 254, 257-258 (1859).
27. *Attorney-General* v. *Chambers*, 4 DeG.M.&G 206, 43 Eng. Rep. 486 (1854). For a brief discussion of the English common-law rule, see the first article in this series, *Shore & Beach*, Vol. 48, No. 4, October 1980, p. 17.
28. This was the view of the U. S. Supreme Court in *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10, 25 (1935), citing *East Boston Co.* v. *Commonwealth*, 203 Mass. 68, 72, 89 N.E. 236, 237(1909); *Commonwealth* v. *City of Roxbury*, *supra*, 75 Mass. (9 Gray) 451, 471, 482-483, 503.

29. In regulations promulgated in 1978 by the commissioner of the Department of Environmental Quality Engineering to carry out certain statutory functions, "high-water mark" is defined as "the mean high water line or the arithmetic mean of the high water heights over a specific 19-year metonic cycle (the National Tidal Datum Epoch) and shall be determined using hydrographic survey data of the National Ocean Survey of the U.S. Department of Commerce." Mass. Regs. for Administration of Waterways Licenses § 4 (34). The statutes for which these regulations were issued are discussed under "Private Littoral Rights" and "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
30. *Commonwealth* v. *Alger*, *supra*, 61 Mass. (7 Cush.) 53, 69-70.
31. Whittlesey, *supra*, note 13, at xxxvii. The ordinance contained limitations discussed under "Massachusetts' Public Trust Doctrine," *infra*.
32. See, *e.g.*, *East Boston Co.* v. *Commonwealth*, *supra*, 203 Mass. 68, 72, 89 N.E. 236, 237-238 (distinguishing the term "low water," as used in the ordinance of 1647, from "*ordinary* low water marke," as used in a 1640 grant); *Seawall Etc. Co.* v. *Boston Water P. Co.*, 147 Mass. 61, 64, 16 N.E. 782, 786 (1888) ("extreme low-water mark"). See also Frankel, *supra*, note 13, at 46; Whittlesey, *supra*, note 13, at 53.
33. See *e.g.*, *Iris* v. *Hingham*, 303 Mass. 401, 404-405, 22 N.E.2d 13, 15 (1939); *Wonson* v. *Wonson*, 14 Mass. (14 Allen) 71, 79-80 (1807). See also Frankel, *supra*, note 13, at 47-50; Whittlesey, *supra*, note 13, at 59-64.
34. Mass. Gen. Laws, ch. 240, §§ 19-26.
35. *Michaelson* v. *Silver Beach Improve. Ass'n*, 342 Mass. 251, 253-254, 173 N.E.2d 273, 275 (1961); *East Boston Co.* v. *Commonwealth*, *supra*, 203 Mass. 68, 75, 89 N.E. 236, 238. The private owner is entitled to the accretion even if it is partially caused by a publicly built breakwater. *Burke* v. *Commonwealth*, 283 Mass. 63, 68, 186 N.E. 277, 279 (1933).
36. *Michaelson* v. *Silver Beach Improve. Ass'n*, *supra*, 342 Mass. 251, 259, 173 N.E.2d 273, 278. The court distinguished *Home for Aged Women* v. *Commonwealth*, 202 Mass. 422, 89 N.E. 124 (1909), which upheld the state's right to deprive the riparian owner of access to a tidal river by the construction of a dam and locks and filling lands waterward to a seawall on the theory that project, unlike the creation of the beach, was directly and reasonably related to the improvement of navigation.
37. MCZMP, *supra*, note 3, at 17-19. The map in the final report shows critical erosion along most of the coastline except along Massachusetts Bay near Boston and along Cape Cod's southerly shore.
38. *Id.* at 76-78.
39. *Id.* at 77. See also *id.* at 41-44, 47-48 (policy to approve "erosion control projects only when it has been determined that there will be no significant adverse effects on the project site or adjacent or downcoast areas"), 75.
40. The program refers to and depicts a number of proposed designated port areas. MCZMP, *supra*, note 3, at 19-26. Pointing out that "[e]xisting deep-water channels are ideally suited for accommodating uses which are of state or national importance," the program encourages the location of maritime-dependent industrial developments in these areas. *Id.* at 25, 54-57, 79-82.
41. Whittlesey, *supra*, note 13, at xxxvi.
42. For the language of the ordinance of 1647, see "Determination of Tidal Boundaries," *supra*. Although the 1647 grant has been held to have transferred the fee title to the tidelands to private owners, the ordinance, as published in 1649, expressly provided "that such [private] Proprietor shall not by this libertie have power to stop or hinder the passage of boats or other vessels, in or through any sea creeks, or coves to other mens houses or lands." Whittlesey, *supra*, note 13, at xxxvii.
43. The courts have consistently held that "a littoral owner may build on his tidal land so as to exclude the public completely as long as he does not unreasonably interfere with navigation." *Opinion of the Justices*, *supra*, 365 Mass. 681, 687, 313 N.E.2d 561, 566.
44. *Id.*, 365 Mass. at 685, 313 N.E.2d at 566.
45. *Butler* v. *Attorney General*, 195 Mass. 79, 83-84, 80 N.E. 688, 689 (1907). The court noted that this was the English rule, citing *Brickman* v. *Matley*, [1904] 2 Ch. 313.
46. Some statutory and administrative limitations on development of privately owned tidelands are discussed under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*. In a commentary incorporated in the Department of Environmental Quality Engineering's 1978 regulations for the administration of waterways licenses, *supra*, note 29, at 23, it is stated: "There is a well-developed body of common law in Massachusetts *and other states* regarding the public trust responsibilities of the state. One example of this fiduciary duty imposed upon the Commonwealth by the common law is the duty to protect the tidelands for the common benefit. Between the low water mark and the high water mark, the public trust encompasses the reserved public rights of fishing, fowling and navigation. . . . *Below low water . . . the public trust also includes the duty to protect public lands for the common benefit*, in addition to protecting . . . *any other rights, uses, or activities, or restrictions upon rights, uses or activities for which there is a greater public benefit than public detriment*." (Emphasis added.)
47. Advisory opinions are given by the court's "justices as individuals in their capacity of constitutional advisers of the other departments of [state] government . . ., are not adjudications by the court, and do not fall within the doctrine of *stare decisis* [precedent]." *Commonwealth* v. *Welosky*, 276 Mass. 398, 400, 177 N.E. 656, 658(1931).
48. The bill provided in part: "It is hereby declared and affirmed that the reserved interests of the public in the land along the coastline of the commonwealth include and protect a public on-foot free right-of-passage along the shore of the coastline between the mean high water line and the extreme low water line subject to the [stated] restrictions and limitations. . . ." The bill is set forth in *Opinion of the Justices*, *supra*, 365 Mass. at 682-684 n. 1, 313 N.E.2d at 563-564 n. 1.
49. *Id.*, 365 Mass. at 690-692, 694, 313 N.E.2d at 568-569, 571.
50. *Id.*, 365 Mass. at 686, 313 N.E.2d at 566.
51. *Id.*, 365 Mass. at 687, 313 N.E.2d at 567.
52. *Id.*, 365 Mass. at 688, 313 N.E.2d at 567.
53. *Marks* v. *Whitney*, 6 Cal.3d 251, 98 Cal.Rptr. 790, 491 P.2d 374 (1971).
54. *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*, 61 N.J. 296, 294 A.2d 47 (1972).
55. *Who Owns the Beach? Massachusetts Refuses to Join the Trend of Increasing Public Access*, 11 Urban L. Ann. 283, 290 (1976).
56. *Id.* at 292.
57. MCZMP, *supra*, note 3, at 83-86.
58. *Michaelson* v. *Silver Beach Improve. Ass'n*, *supra*, 342 Mass. 251, 257, 173 N.E.2d 273, 277.
59. *Home for Aged Women* v. *Commonwealth*, *supra*, 202 Mass. 422, 435, 89 N.E. 124, 129.
60. *Michaelson* v. *Silver Beach Improve. Ass'n*, *supra*, 342 Mass. 251, 257, 173 N.E.2d 273, 277. This case is discussed briefly under "Determination of Tidal Boundaries," *supra*.
61. For early statutes regarding filling, see Mass. Stat. 1866, ch.149; Mass. Stat. 1869, ch. 432; and Mass. Stat. 1872, ch. 236. Current statutes and regulations are discussed briefly under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
62. Beginning in 1837, various statutes establishing lines for Boston Harbor were enacted. Although such laws did not apply to wharves and other structures built before their passage, the laws were upheld with respect to subsequently built wharves extending beyond the harbor lines. *Commonwealth* v. *Alger*, *supra*, 61 Mass. (7 Cush.) 53, 103-104.
63. Mass. Gen. Laws, ch. 21, § 54.
64. The term "coastal waters" is defined in part as "all waters of the commonwealth within the rise and fall of the tide and the marine jurisdiction of the commonwealth." Mass. Gen. Laws, ch. 130, § 1.
65. Mass. Gen. Laws, ch. 21, § 54. See also Mass. Gen. Laws, ch. 91, § 2.
66. A. Dawson, *Protecting Massachusetts Wetlands*, 12 Suffolk U.L. Rev. 755, 757 (1978). The article traces the subsequent history of wetlands protection legislation.
67. Mass. Gen. Laws, ch. 131, § 40. This statute combines the previously separate "coastal" and "inland" wetlands protection acts.
68. T. McGregor & A. Dawson, *Wetlands and Floodplain Protection*, 64 Mass. L. Rev. 73, 76 (1979).
69. Mass. Gen. Laws, ch. 130, § 105.
70. Mass. Gen. Laws, ch. 91, § 14 (1981 supp.)
71. *Lovequist* v. *Town of Dennis*, 79 Mass. Adv. Sh. 2210, 393 N.E.2d 858 (1979). This decision is discussed in Brown, *Home Rule Wetlands Protection in Massachusetts: Lovequist v. Conservation Commission of the Town of Dennis*, 9 B.C. Env. Aff. L.Rev. 103 (1980). See also McGregor & Dawson, *supra*, note 68, at 79-80.
72. MCZMP, *supra*, note 3, at 34.
73. Mass. Gen. Laws, ch. 21A.
74. MCZMP, *supra*, note 3, at 36-99.

The Law of the Coast in a Clamshell*

Part VII: The New Jersey Approach

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In the popular game of Monopoly the players compete to acquire imaginary real estate in Atlantic City. In real life, gambling casino developers and the State of New Jersey today are vying over actual property rights in that seaside resort.

This is only one of numerous controversies that have erupted along New Jersey's 126-mile Atlantic Ocean coast[1] and in other parts of its coastal zone in recent years, as land values sharply escalated and gambling was legalized.

The Atlantic City battle is a high-stakes contest about whether an historic high-water line should be used to divide private and public rights in coastal lands.[2] The dispute may have spurred the voters' approval in November 1981 of a constitutional amendment allowing the state only one year to map and assert its claims to formerly tide-flowed lands.[3]

For more than a decade, what is the appropriate method of drawing the boundary between public and private lands in the Hackensack Meadowlands near New York City has been in contention. While the New Jersey Supreme Court in 1980 upheld the state's novel use of a biological approach to delineating the line, many title questions in this marshy area remain.[4]

Another controversial issue before the courts is whether the general public has the right to cross private lands to get to the ocean. The Garden State's highest tribunal has already acted to increase public beach access, holding that coastal communities must allow nonresidents and residents the same opportunity to use municipally owned beaches.[5]

TITLE TO LANDS WITHIN THE COASTAL ZONE

The New Jersey Coastal Management Program defines the state's coastal zone to include the area from the outer limit of the territorial sea landward to "at least the first 100 feet inland from all tidal waters."[6] It embraces not only the Atlantic Ocean coast but the waters and waterfronts of the Hudson and Delaware Rivers and the controversial region of the Hackensack Meadowlands.[7]

For convenience and consistency with other articles in this series, lands within the state's coastal zone may be divided into uplands, tidelands and submerged lands.[8] However, this classification scheme must be used with caution here because of uncertainties over title to many coastal zone parcels, some of which arguably may be classified as either uplands or tidelands.

Under the theory that the state is the sovereign owner of tide-flowed lands, New Jersey public officials have claimed some areas of marsh and meadowland.[9] Similarly, disputes over the location of the "former mean high-tide line" have raised serious title questions along the Atlantic coast. For example, in Atlantic City (Fig. 1), the state has claimed public rights in lands located between the 1852 high-water line and the present shoreline proposed for casino sites despite prior state grants of those intervening lands.[10]

A. Uplands

Most New Jersey coastal zone uplands are privately owned, although they are subject to widespread regulation.[11]

B. Tidelands

New Jersey was vested with title to tidelands, in trust for the public, upon becoming a state in 1776.[12] Unlike the colonial government of Massachusetts,[13] the pre-Revolutionary authorities in what is now New Jersey had not made a blanket grant of tide-flowed lands into private ownership.

Nevertheless, a local common law or custom arose under which private upland owners were permitted to fill in and reclaim these lands, thus gaining title to and other rights in adjoining tidelands. This practice was recognized by the courts[14] and then codified in the Wharf Act of 1851.[15] Although the act was repealed in two stages (in 1869 and 1891),[16] private parties obtained title if they had excluded the tidewaters before the repeal.[17]

In addition, the state has made many so-called

*This is the seventh in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of New Jersey concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California. © 1982 by Peter H. F. Graber. The author also asserts copyright protection for the first six articles in the series.

"riparian grants"—conveyances of tide-flowed lands—under the general Riparian Act of 1869.[18] About one-third of the state's Atlantic Ocean coast was conveyed into private ownership by riparian grants during the 19th century and early 1900s.[19] Much of the Atlantic City coastline was included in such grants.[20]

Although most New Jersey tidelands are still publicly owned, ownership of many coastal zone parcels, both in the meadowlands and along the ocean coast, is in doubt. In an effort to speed up the resolution of these title disputes, the voters approved a state constitutional amendment in the November 1981 election. The referendum was obviously prompted by the state's recent aggressive assertion of sovereign title to or rights in lands, such as those in portions of Atlantic City, that were historically tidelands but are not presently washed by the tides.

The 1981 constitutional amendment, which is expected to promote casino development on these lands in Atlantic City,[21] provides that the state's rights in lands *not* tidally flowed in the past 40 years will be extinguished unless the state defines and asserts claims within one year of its passage.[22] If private interests disagree with the state's assertions, further litigation will of course follow to test those claims.

C. Submerged Lands

New Jersey has title to submerged lands within a 3-geographical-mile belt along its Atlantic Ocean coast by virtue of the Submerged Lands Act of 1953.[23] The state's claim to the area between the 3-mile limit and the seaward extent of the United States' jurisdiction was rejected by the United States Supreme Court in 1975.[24]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

In *O'Neill* v. *State Highway Department*,[25] decided in 1967, the New Jersey Supreme Court stated that the mean high-water line,which is the landward boundary of state-owned tidelands, is the intersection with the shore of a tidal plane based on the mean of *all* the high tides over an 18.6-year period. This decision is consistent with the United States Supreme Court's 1935 opinion in the *Borax* case[26] and the National Ocean Survey's method of defining the line of mean high water. Although the rule is clearcut, its application has proven troublesome, especially in marsh and meadowland areas.

The *O'Neill* decision contained this recommendation: "As a matter of good housekeeping, . . . the State should do what is feasible to catalogue the State's far-flung [tide-flowed land] holdings, . . . "[27] In response, the Legislature passed a statute requiring title studies and surveys of meadowlands.[28] The resulting dispute over state claims to ownership of tide-flowed lands led to lengthy litigation over the state's method of delineating the tidal boundary in certain areas.

In 1980, in *City of Newark* v. *Natural Resource Council*,[29] the New Jersey Supreme Court upheld the state's "novel technique of biological delineation instead of using the traditional tidal mapping program of tide gauging to locate mean high-water points in the marsh and surveying to connect those points into a mean high-water line."[30]

The court emphasized, however, that it was *not* deciding what effect the state's claim maps would have in later cases to determine title but was simply ruling that the "maps represent a reasonable implementation of the duty mandated" by the statute calling for surveys of meadowlands.[31] Consequently, as of this writing, it is still not certain whether the state's controversial biological approach will be sufficient to prove the state's title claims.[32]

Interestingly, in some areas of tidal marsh near the open coast, a cooperative project between the National Ocean Survey and the State of New Jersey disclosed that a "botanical mean high-water line" was landward of the physical mean high-water line at some points and seaward of it at other points.[33]

B. Legal Effect of Physical Changes in the Location of the Shoreline

In general, accretion and erosion result in a movement of the legal boundary between privately owned uplands and public tidelands in New Jersey.[34] One decision applied this rule even where there had been accretion 200 feet seaward of the fixed exterior boundary of a 1915 state riparian grant of tide-covered lands to the then adjoining private upland owner. The court stated that the owner had the right to "alluvion which might thereafter gradually and imprecepitbly attach to the upland."[35]

But New Jersey currently does not allow either the upland owner (without some state permit, license or grant) or the state to gain additional land by making artificial changes. As stated in the landmark *O'Neill* case:

> "The State cannot acquire interior land by such artificial works as ditching which enables the tide to ebb and flow on lands otherwise beyond it. And so too the riparian owner cannot, today, enlarge his holdings by excluding the tide."[36]

New Jersey's highest court has expressly refused to follow California's rule that artificially accreted land belongs to the state or its legislative grantee rather than the private upland owner.[37] Nevertheless, two noted legal commentators say that "where artificial changes exist, it is necessary to ascertain [the location of] the mean high-tide line prior to the change in order to determine who owns the property."[38]

The state's claim to public rights in some portions of Atlantic City's waterfront, ripe for casino development because of the legalization of gambling, is based on the contention that the high-water line moved seaward from its 1852 location due to unauthorized artificial fill. One critic points out that many state riparian grants of tide-flowed lands were made to upland owners based on other, more seaward positions of the line.[39]

It has been reported that various casino companies, which needed state permits, paid the state a total of $5 million in settlement of potential state claims rather than delaying their projects to litigate these questions.[40] The 1981 constitutional amendment mentioned above,[41] requiring the state to assert any claim it has to such Atlantic City lands and other areas that have not been

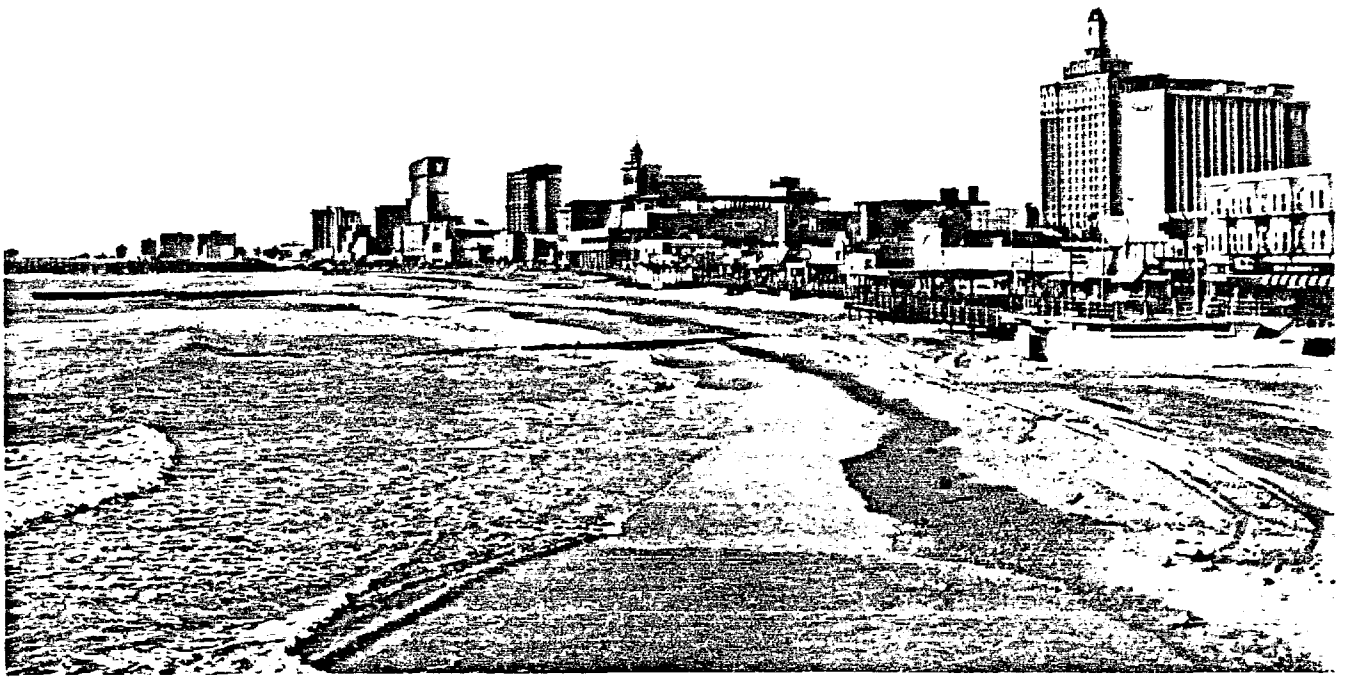

Fig. 1. Hotels and casinos line the famed boardwalk at Atlantic City, site of a controversy over whether the public has rights in formerly tide-flowed lands. (December 1981 photograph by Atlantic City Convention and Visitors Bureau.)

tidally flowed in the past 40 years, should expedite the resolution of these boundary problems.

Much of New Jersey's coast is prone to severe erosion. The state's Coastal Management Program, citing a 1977 Rutgers University study, identifies 14 examples of high-risk erosion areas.[42] The program calls for beach nourishment projects and, while clearly favoring nonstructural solutions to shoreline erosion problems, concedes that such structural solutions as jetties, groins, seawalls and bulkheads "are appropriate and essential at certain locations, given the existing pattern of urbanization of New Jersey's shoreline."[43]

NEW JERSEY'S PUBLIC TRUST DOCTRINE

In 1821 New Jersey's Supreme Court became one of the first tribunals to espouse the public trust doctrine.[44] Under this concept, the public may use tidal waters for certain purposes regardless of whether the sovereign or private parties own the underlying lands. However, during the second half of the 19th century, the court adopted a more restrictive application of the concept.[45]

Modern New Jersey court decisions have expanded the public trust doctrine to include recreational use of and public access to sandy beaches. The 1972 *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*[46] opinion states that the public trust doctrine bars a municipality from discriminating against nonresidents in fees charged for the use of a municipally owned beach.

This opinion clearly shows the state Supreme Court's liberal attitude toward the scope of the public trust doctrine:

> "We have no difficulty in finding that, in this latter half of the twentieth century, the public rights in tidal lands are not limited to the ancient prerogatives of navigation and fishing, but extend as well to recreational uses, including bathing, swimming and other shore activities."[47]

In 1978 the doctrine was further extended in a decision that the *dry-sand* part of the beach landward of the mean high-tide line is subject to the public trust. The court ruled that the doctrine "requires that the municipally owned upland sand area adjacent to the tidal waters must be open to all on equal terms and without preference,"[48] banning any discrimination against nonresidents of the community.

PUBLIC ACCESS RIGHTS

As demonstrated by the 1972 and 1978 decisions applying the public trust doctrine to prohibit discrimination against nonresidents wishing to use municipally owned beaches,[49] the New Jersey Supreme Court has championed the cause of public access to these beaches rather than waiting for legislative action.

A more difficult legal question—public access to the ocean across privately owned lands—is now pending in

the courts. The small resort of Bay Head, whose privately owned beach is managed by a private improvement association, is the focus of litigation in which the state's public advocate seeks to assure public access.[50]

Promotion of public access is one of the basic coastal policies in the New Jersey Coastal Management Program. It calls for linear access along the waterfront and more waterfront parks.[51] The program also sets forth criteria to be considered by municipalities in developing additional beach access points, and describes techniques that may be used to provide access, including the public trust doctrine, coastal permit review, capital spending programs and a beach bus shuttle.[52]

PRIVATE LITTORAL RIGHTS

Although littoral owners in New Jersey are entitled to the benefit of accretion not produced by their own actions,[53] there seems to be a question whether they have the usual common-law rights of access to the adjoining tide and submerged lands. In a 1968 decision, the state's highest court flatly stated: "The existence of a valuable [private] property right of access, as such, has been recognized elsewhere though not in New Jersey."[54]

On the other hand, in an earlier case, dealing with the rights of upland owners who had received state riparian grants bounded by state-fixed exterior lines (such as bulkhead and pierhead lines), the court said "such lines were to be established so as to delineate navigable waters and that access to such waters was a primary consideration and inherent purpose in grants of land flowed or formerly flowed by tidewater."[55]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The state may lease tide-flowed lands either to adjoining upland owners or to others upon notice to the owners.[56]

B. Regulatory Functions

"In 1914 the [New Jersey] Legislature showed its first interest in regulating the land areas along tidal waters when it passed the Waterfront Development Law."[57] The law, as amended in 1975, requires prospective developers to obtain state approval of "[a]ll plans for the development of any water-front upon any navigable waters or stream . . . or bounding thereon, . . . "[58] This law calls for approval for development of any kind, including "construction or alteration of a dock, wharf, pier, bulkhead, bridge, pipe line [and] cable."[59] An appellate court held that the state is not liable for damages for denying dredging and filling permits under this law to the holder of a state grant of tide-flowed lands.[60]

The Hackensack Meadowlands Reclamation and Development Act, approved in 1969,[61] created the Hackensack Meadowlands Development Commission. This state-level regional agency regulates a 31-square-mile area in northeastern New Jersey encompassing part of the Hackensack River Estuary and related uplands.[62] In addition to the preparation, adoption and implementation of a master plan for the meadowlands,[63] the commission has extensive authority over development and redevelopment of the area,[64] working in conjunction with the Department of Environmental Protection.[65]

The Wetlands Act of 1970[66] applies to all coastal wetlands in the Raritan River Basin, south along the Atlantic Ocean and north along Delaware Bay and River.[67] The act requires permits for such activities as draining, dredging, excavation, and removal of soil, mud, sand and gravel.[68] The act has been upheld by the courts.[69]

In 1973 the Legislature passed the Coastal Area Facilities Review Act (CAFRA).[70] This law authorizes the Department of Environmental Protection "to regulate and approve the location, design and construction of major facilities" throughout a 1,376-square-mile region embracing coastal resort areas and barrier beach islands.[71] Constitutionality of CAFRA has been upheld.[72]

The New Jersey Coastal Management Program,[73] which is being implemented through the coordinated use of CAFRA and the other existing permit programs, was developed in two phases. The Federal Government approved the Bay and Ocean Shore Segment in September 1978 and the entire statewide program in September 1980.

The program is administered by the Division of Coastal Resources in the Department of Environmental Protection. The program emphasizes eight basic coastal policies, including the protection of the coastal ecosystem, the concentration of development in certain areas and the preservation of open space elsewhere, and the maintenance and upgrading of energy facilities.[74] A detailed Shore Protection Master Plan was published in October 1981.

ACKNOWLEDGMENTS

The author is grateful to John R. Weingart, chief, Bureau of Coastal Planning and Development, and Neil Yoskin, staff attorney, both of the Division of Coastal Resources, Department of Environmental Protection, State of New Jersey, for providing some of the source materials cited in this article.

REFERENCES

1. *New Jersey Coastal Management Program and Final Environmental Impact Statement* [hereinafter cited as NJCMP] 20 (August 1980). The state's entire coastal zone includes about 1,792 miles of tidal coastline. *Ibid.*
2. For an article on the Atlantic City dispute written from the perspective of the private sector, see Morgenroth, "The Great Casino Robbery or How the State Got Richer When the Tide Came In," *Title News*, Vol. 58, No. 12, December 1979, p. 9. According to the article, the state bases claims to public rights on an 1852 high-water line that is more landward than the present shoreline and the lines used by the state in so-called "riparian grants" of tidelands into private ownership in the 19th century.
3. See "Title to Lands Within the Coastal Zone," *infra*.
4. Located only 6 miles from midtown Manhattan, the Hackensack Meadowlands District contains 31 square miles of expensive real estate. NJCMP, *supra*, note 1, at 269. For a brief description of the state-level regional agency regulating the meadowlands, see "Leasing and Regulation of Coastal Zone

Lands and Waters," *infra*. As to the boundary delineation problems in the meadowlands, see *City of Newark* v. *Natural Resource Council*, 82 N.J. 530, 414 A.2d 1304 (1980).

5. *Van Ness* v. *Borough of Deal*, 78 N.J. 174, 393 A.2d 571 (1978); *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*, 61 N.J. 296, 294 A.2d 47 (1972).
6. NJCMP, *supra*, note 1, at 20. The zone extends as far as 24 miles landward of the coastline in one county. *Ibid.*
7. *Id.* at 19-20.
8. In this series tidelands are defined as lands lying between the lines of mean high and mean low water and submerged lands as lands lying seaward of the line of mean low water. In New Jersey law and legal writings, however, the term "riparian lands" is often used to refer to tide-flowed lands, expecially lands granted by the state into private ownership. Semantically, the use of this term, which more precisely means lands contiguous to a river, may cause some confusion; thus it is used in this article only when essential.
9. As two critics of the state's claims contend: " . . . [I]n 1959 the State of New Jersey attempted to utilize the tidelands doctrine to capture untold acreage of the marshes and meadowlands. This has caused intense turmoil, resulting in new and complex problems . . . Due to this attempted expansion of the doctrine, hundreds of properties . . . have been taken and used for state purposes without compensating the record owners . . . ; prior homeowners of many years are being threatened with loss of title; prior grants and state deeds are being ignored; . . . " Porro & Teleky, *Marshland Title Dilemma: A Tidal Phenomenon*, 3 Seton Hall L.Rev. 323, 325 (1972) (footnotes omitted). These legal commentators, noting there are about 244,000 acres of marshland in the state, underscore the difficulty of classifying this land as either upland or tideland by differentiating between "high marsh," located *above* the mean high-tide line and covered by tidal waters during the spring and extraordinary tides, and "low marsh," lying *below* the mean low-tide line, through an analysis of the marshland biota. *Id.* at 332-333. These title disputes have arisen in part because of state claim maps prepared pursuant to a coastal mapping law enacted after a 1967 New Jersey Supreme Court decision spelling out tidal boundary rules. See "Determination of Tidal Boundaries," *infra*.
10. For a critical analysis of the state's Atlantic City claims, see Morgenroth, *supra*, note 2, at 9. The state has contended that there was unauthorized fill beyond the 1852 line, which was substantially landward of the present shoreline.
11. For a summary of some of the regulatory schemes, see "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
12. *Ward Sand & Materials Co.* v. *Palmer*, 51 N.J. 51, 54, 237 A.2d 619, 620 (1968). See also *Shively* v. *Bowlby*, 152 U.S. 1, 14-15 (1894); *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842). Before the American Revolution, the English Crown held such lands. In 1664 Charles II had granted his brother James, the duke of York, a large area, including what is presently New Jersey. Later, the Province of Nova Cassarea (New Jersey) was granted to the proprietors, who in 1702 surrendered the powers of government to Queen Anne. *Arnold* v. *Mundy*, 6 N.J.L. 1 (Sup.Ct. 1821); *Schultz* v. *Wilson*, 44 N.J. Super. 591, 131 A.2d 415 (App.Div. 1957).
13. For a brief description of the history of private ownership of tidelands in Massachusetts, see the sixth article in this series, *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-15.
14. *Gough* v. *Bell*, 22 N.J.L. 441 (Sup.Ct. 1850), *aff'd* 23 N.J.L. 624 (E.&A. 1852).
15. 1851 N.J. Laws, ch. 124. This statute and other early laws providing for private rights in tidelands are discussed in Barrett, "Riparian Rights—A New Jersey Dilemma," *Shore and Beach*, Vol. 49, No. 4, October 1981, p. 32.
16. 1869 N.J. Laws, ch. 383; 1891 N.J. Laws, ch. 124.
17. Tidelands "acquired by a riparian [upland] owner pursuant to the local custom prior to the effective date of the repealing statute . . . are securely held, . . . " *O'Neill* v. *State Highway Department*, 50 N.J. 307, 325, 235 A.2d 1, 19 (1967) (footnote omitted). See also *Ward Sand & Materials Co.* v. *Palmer*, *supra*, 51 N.J. at 54, 237 A.2d at 621.
18. 1869 N.J. Laws, ch. 383. Present statutes provide for the conveyance of tidelands subject to various limitations. N.J.S.A. § 12:3-5 *et seq.* However, "it is the present practice of the [state] only to license the use of [tide-flowed] lands, and not to grant them outright, except in unusual cases." NJCMP, *supra*, note 1, at 39.
19. NJCMP, *supra*, note 1, at 292. The state report notes these ocean beach ownership percentages: private, 26%; municipal, 51%; state, 9.2%; and Federal Government, 13.4%. *Id.* at 294-295. A legal writer states that 70% of the state's 126-mile-long "Atlantic Ocean coast from Sandy Hook to Cape May Point is in some form of public ownership." Goldshore, *Trends in Environmental Litigation: A Survey of 1976 New Jersey Judicial Decisions*, 9 Rut.-Cam. L.J. 21, 30 (1977).
20. Morgenroth, *supra*, note 2, at 9, 11.
21. "Riparian Rights Change May Aid Atlantic City," N.Y. Times, Nov. 8, 1981, p. 16
22. The new constitutional provision (art. 8, § 5) approved by the voters reads: "No lands that were formerly tidal flowed, but which have not been tidal flowed at any time for a period of 40 years, shall be deemed riparian lands, or lands subject to a riparian claim, and the passage of that period shall be a good and sufficient bar to any such claim, unless during that period the State has specifically defined and asserted such a claim pursuant to law. This section shall apply to lands which have not been tidal flowed at any time during the 40 years immediately preceding adoption of this amendment *with respect to any claims not specifically defined and asserted by the State within one year of the adoption of this amendment.*" (Emphasis added.)
23. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
24. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975).
25. 50 N.J. 307, 323-324, 235 A.2d 1, 9-10.
26. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). See *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and Vol. 49, No. 2, April 1981, p. 21.
27. 50 N.J. at 320, 235 A.2d at 8.
28. N.J.S.A. § 13:1B-13.2.
29. 82 N.J. 530, 414 A.2d 1304 (1980), *cert. denied*, 449 U.S. 983 (1980).
30. 82 N.J. at 535, 414 A.2d at 1306. The Natural Resource Council (NRC) of the Department of Environmental Protection (DEP), in mapping the state's claims in the Hackensack Meadowlands, used this biological approach. The court said: "The NRC method involved an analysis of color infrared photographs of the meadows. This procedure was premised on the theory that there is a correlation between the various spectral reflectance patterns of *Phragmites communis*, a reedlike grass which grows extensively in the Hackensack meadows, and the extent of tidal inundation where the plants exist. Certain color patterns are said to indicate areas which are regularly flowed by the tide, while other patterns indicate areas not suspectible to tidal flow." *Ibid.*
31. 82 N.J. at 542, 414 A.2d at 1310.
32. As indicated above, the unresolved controversy over mean high-water line boundary delineation techniques creates uncertainty as to titles in many marsh and meadowland areas. Among early legal discussions of the complex boundary determination problem are Porro, *Invisible Boundary—Private and Sovereign Marshland Interests*, 3 Nat. Resources Law 512 (1970), and Porro & Teleky, *supra*, note 9, 3 Seton Hall L.Rev. at 323. The attorney for the New Jersey Land Title Insurance Association and other parties contesting the state's biological approach in *City of Newark* v. *Natural Resource Council*, *supra*, 82 N.J. 530, 414 A.2d 1304, wrote a detailed critique of the biological approach in an article published before the Supreme Court's 1980 decision in that case. See Weigel, "New Jersey's Tideland Problem," *Title News*, Vol. 58, No. 12, December 1979, p. 12.
33. See description of the project in Weigel, *supra*, note 32, at 17 n. 32, which concludes: "The horizontal distance between the botanical mean high-water line and the physical mean high-water line at its extreme points is from -133 feet to +88 feet (botanical mean high-water line inshore of physical mean high-water line is considered +)."
34. *Borough of Wildwood Crest* v. *Masciarella*, 51 N.J. 352, 357, 240 A.2d 665, 667 (1968).
35. *Id.*, 51 N.J. at 361, 240 A.2d at 670. The Supreme Court accepted the trial court's finding that the accretion was due to a combination of natural and artificial causes.
36. *O'Neill* v. *State Highway Department*, *supra*, 50 N.J. at 324, 275 A.2d at 10. This is a change from the local custom codified in the Wharf Act of 1851 and discussed under "Title to Lands Within the Coastal Zone," *supra*.
37. *Borough of Wildwood Crest* v. *Masciarella*, *supra*, 51 N.J. at 360-

361, 240 A.2d at 669. For a brief description of the California rule, see the third article in this series, *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 22.

38. Porro & Teleky, *supra*, note 9, 3 Seton Hall L.Rev. at 330.
39. Morgenroth, *supra*, note 2, at 9, 11, 42.
40. "Riparian Rights Change May Aid Atlantic City," N.Y. Times, Nov. 8, 1981, p. 16.
41. See "Title to Lands and Waters Within the Coastal Zone," *supra*.
42. NJCMP, *supra*, note 1, at 105.
43. *Id.* at 212-214. For a critical commentary on New Jersey's beach erosion control efforts, see Vaccaro, "New Jersey Seashore—Ultimate Destruction or Salvation," *Shore and Beach*, Vol. 49, No. 4, October 1981, pp. 34-37.
44. In *Arnold* v. *Mundy*, *supra*, 6 N.J.L. 1, 12 (3d ed. 1902), the state Supreme Court's chief justice said: ". . . [T]he navigable rivers, where the tide ebbs and flows, the ports, the bays, the coasts of the sea, including both the water and the land under the water, for the purposes of passing and repassing, navigation, fishing, fowling, sustenance, and all the other uses of the water and its products . . . are common to all the people, and that each has a right to use them according to his pleasure, subject only to the laws which regulate that use, ..." For an exhaustive discussion of *Arnold* and the public trust doctrine, see Note, *State Citizen Rights Respecting Greatwater Resource Allocation: From Rome to New Jersey*, 25 Rutgers L.Rev. 571, 651-657 (1971).
45. Note, *supra*, note 44, at 657-665.
46. 61 N.J. 296, 294 A.2d 47 (1972). See Jaffee, *The Public Trust Doctrine Is Alive and Kicking in New Jersey Tidalwaters: Neptune City v. Avon-by-the-Sea—A Case of Happy Atavism*, 14 Nat. Resources J. 309 (1974); Note, 26 Rutgers L.Rev. 179 (1972); Note, 42 Cin. L.Rev. 554 (1973); Goldshore, *supra*, note 19, at 30-32.
47. 61 N.J. at 309, 294 A.2d at 54.
48. *Van Ness* v. *Borough of Deal*, *supra*, 78 N.J. 174, 179, 393 A.2d 571, 573. The court expressly limited its opinion to municipally owned open beaches, stating that it was "not called upon to deal with beaches on which permanent improvements may have been built, or beaches as to which a claim of private ownership is asserted." *Ibid.*
49. *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*, *supra*, 61 N.J. 296, 294 A.2d 47; *Van Ness* v. *Borough of Deal*, *supra*, 78 N.J. 174, 393 A.2d 571. See "New Jersey's Public Trust Doctrine," *supra*.
50. Weigel, *supra*, note 32, at 16 n. 8. Since that article was written, a trial court ruled that the state's effort to open the beach to the general public amounted to a physical invasion of private property without the payment of just compensation. An appeal is pending.
51. NJCMP, *supra*, note 1, at 11.
52. *Id.* at 294-300.
53. *Borough of Wildwood Crest* v. *Masciarella*, *supra*, 51 N.J. 352, 359-360, 240 A.2d 665, 668-670.
54. *Id.*, 51 N.J. at 357, 240 A.2d at 667.
55. *Bailey* v. *Council of Division of Planning*, 22 N.J. 366, 370, 126 A.2d 189, 191 (1956). See also *Bailey* v. *Driscoll*, 19 N.J. 363, 373, 117 A.2d 265, 270 (1955), stating that some "statutory sections on riparian lands reflect the thought that the very reason for grants of submerged lands is to allow the littoral owner access to navigable waters." This right of access stems from the local common law or custom that was codified in the subsequently repealed Wharf Act of 1851, discussed under "Title to Lands Within the Coastal Zone," *supra*. See the first decision in the sequence of *Bailey* cases, *Bailey* v. *Driscoll*, 34 N.J. Super 228, 112 A.2d 3 (App.Div. 1955).
56. N.J.S.A. §§ 12:3-10 *et seq.*, 12:3-23 *et seq.*
57. NJCMP, *supra*, note 1, at 3; 1914 N.J. Laws, ch. 123.
58. N.J.S.A. § 12:5-3.
59. *Ibid.*
60. *In re Loveladies Harbor, Inc.*, 176 N.J. Super. 69, 422 A.2d 107 (App.Div. 1980).
61. N.J.S.A. § 13:17-1 *et seq.* In conjunction with this act, the Legislature mandated a state agency "to undertake title studies and surveys of meadowlands throughout the State and to determine and certify those lands which it finds are State owned lands." N.J.S.A. § 13:1B-13.2. See "Determination of Tidal Boundaries," *supra*.
62. NJCMP, *supra*, note 1, at 31.
63. N.J.S.A. §§ 13:17-6(i), 13:17-9 *et seq.* The master plan was adopted in 1972 and revised in 1977, 1978 and 1979. NJCMP, *supra*, note 1, at 42.
64. See, *e.g.*, N.J.S.A. §§ 13:17-6 (k), (r), 13:17-13, 13:17-14.
65. NJCMP, *supra*, note 1, at 42.
66. N.J.S.A. § 13:9A-1 *et seq.* For discussions of this act, see Clayton, "Wetland Regulation in New Jersey," *Title News*, Vol. 58, No. 12, December 1979, p. 19; Goldshore, *supra*, note 19, at 24-25.
67. N.J.S.A. § 13:9A-2.
68. N.J.S.A. § 13:9A-4.
69. *In re Loveladies Harbor, Inc.*, *supra*, 176 N.J. Super. 69, 422 A.2d 107; *American Dredging Co.* v. *State of New Jersey*, 161 N.J. Super. 504, 391 A.2d 1265 (Ch.Div. 1978), *aff'd* 169 N.J. Super. 18, 404 A.2d 42 (App.Div. 1979).
70. N.J.S.A. § 13:19-1 *et seq.* For a discussion of this act, see Goldshore, *supra*, note 19, at 26-28.
71. NJCMP, *supra*, note 1, at 32-37.
72. *Toms River Affiliates* v. *Department of Environmental Protection*, 140 N.J. Super. 135, 355 A.2d 679 (App.Div. 1976), *cert. den.* 71 N.J. 345, 364 A.2d 1077 (1976).
73. The program was prepared pursuant to the federal Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 *et seq.*
74. NJCMP, *supra*, note 1, at 10-12.

The Law of the Coast in a Clamshell*

Part VIII: The Oregon Approach

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Late in 1805 the Lewis and Clark Expedition first sighted the Pacific Ocean at the mouth of the Columbia River. Before starting their return journey, the party spent a cold, wet winter at a camp called Fort Clatsop on what is now the Oregon side of the Columbia.

From the mouth of the Columbia, Oregon's scenic coastline stretches about 360 miles south along the Pacific.[1] Although the Lewis and Clark Expedition helped encourage the settlement of the Pacific Northwest, much of the state's coast remains undeveloped. Unspoiled pocket beaches are separated by rugged headlands, such as Cape Blanco (Fig. 1). The forest-clad Coast Range rises behind one of the least commercialized and industrialized seashores in the nation.

In 1966, more than a century and a half after the Lewis and Clark Expedition, an incident occurred about 30 miles downcoast from Fort Clatsop that dramatically affected Oregon's contemporary legal approach to the coast. William G. Hay and his wife, owners of a motel in Cannon Beach, fenced off part of the dry-sand area of the beach near the motel for the exclusive use of their guests.

That action triggered both the enactment of the 1967 Beach Law[2] declaring the public's rights to use the coast seaward of the "vegetation line"[3] and a landmark 1969 Oregon Supreme Court decision[4] barring the Hays from enclosing the dry-sand area in front of their motel.

The Beach Law and the court's ruling exemplify the Beaver State's subordination of private rights to the general public's use of the dry-sand beach. A similar concern over controlling development along the coast is reflected in the fact that Oregon was the second state in the Union to have a federally approved coastal zone management program.

TITLE TO LANDS WITHIN THE COASTAL ZONE

The Oregon Coastal Management Program defines the state's coastal zone as extending "from the Washington border on the north to California on the south, seaward to the extent of state jurisdiction as recognized in federal law, and inland to the crest of the coastal mountain range."[5] These coastal zone lands may be divided into uplands, tidelands and submerged lands.[6]

A. Uplands

Most of Oregon's coastal zone uplands are privately owned, with titles originating in Federal Government grants. But, as the state's highest court pointed out, the strip of littoral lands seaward of the line of vegetation,[7] commonly called the dry-sand area, historically has been assumed to be "public property" by both the general public and the private landowners.[8]

In fact, this assumption seems to be one of the underpinnings for the court's controversial 1969 decision in *State ex rel. Thornton* v. *Hay*.[9] Resurrecting the ancient English legal doctrine of custom, the court said that the public has a recreational easement in privately owned uplands between the vegetation line and the mean high-tide line.[10]

In addition to those public rights to use the dry-sand area that may exist under the *Thornton* decision,[11] private upland ownership is subject to various state regulations.[12]

B. Tidelands

On February 14, 1859, upon its admission to the Union, Oregon became the owner of the tidelands within its borders,[13] with the same sovereignty and jurisdiction over these lands as the original states under the equal-footing doctrine.[14] The state still owns most of the tidelands along its Pacific Ocean coast.

Some early Oregon laws permitted the sale of tidelands into private ownership,[15] but since 1947 state agencies have, in general, been prohibited from conveying such lands.[16]

Current statutory law declares that, excluding tidelands sold before 1947, "the shore of the Pacific Ocean between ordinary high tide and extreme low tide, and from the Oregon and Washington state line on the north to the Oregon and California line on the south" constitutes a "state recreation area."[17] In earlier laws,

*This is the eighth in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the statutory and case law of the State of Oregon concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or of any other agency of the State of California. © 1982 by Peter H. F. Graber. The author also asserts copyright protection for the first seven articles in the series.

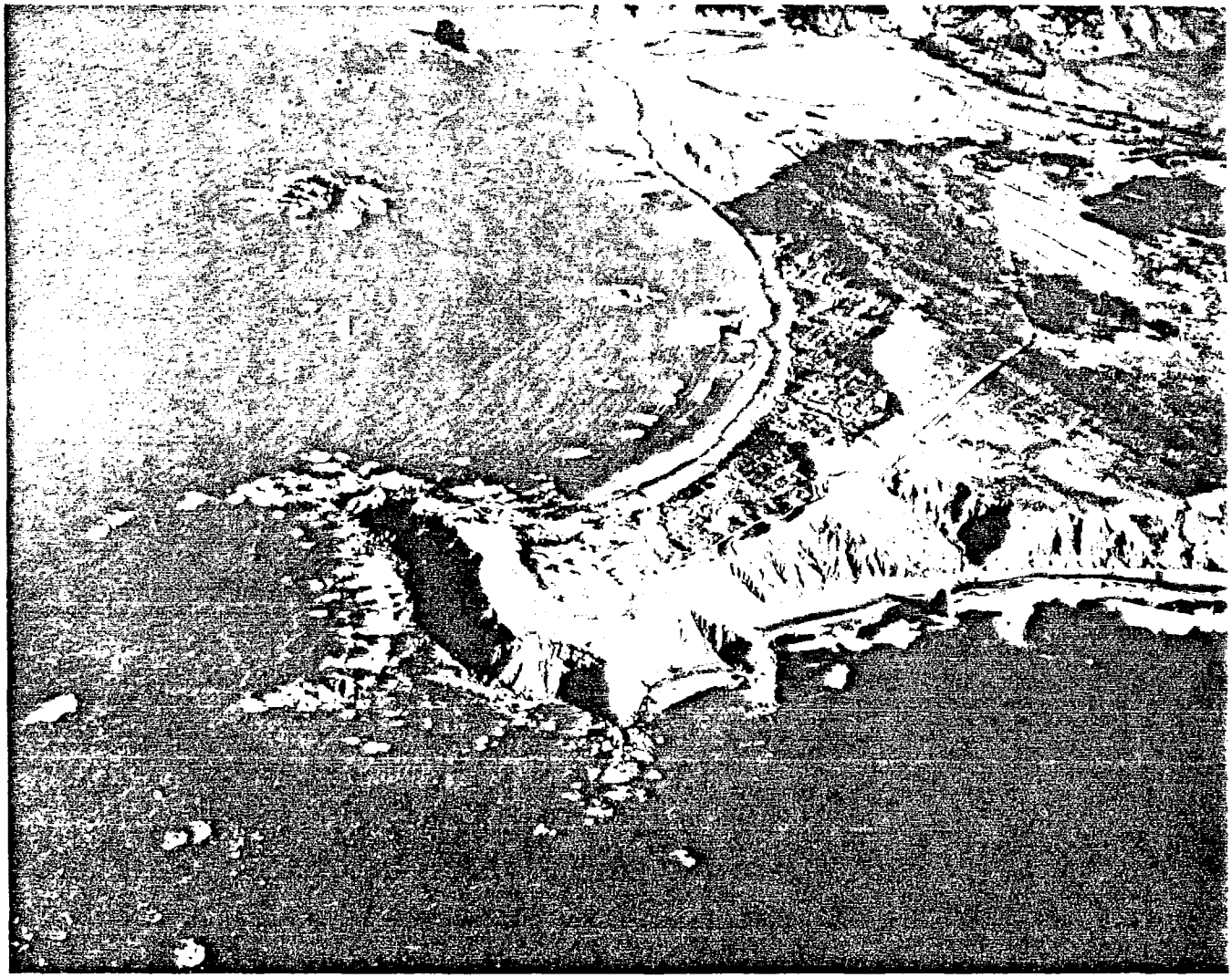

Fig. 1: Aerial view of Cape Blanco, Oregon. This headland is one of the most westerly points in the contiguous United States. (Photograph courtesy of the Water Resources Center Archives, University of California, Berkeley.)

dating from 1899, the ocean shore had been declared a public highway.[18]

C. Submerged Lands

The Submerged Lands Act of 1953[19] confirmed Oregon's title to submerged lands within a 3-geographical-mile strip in the Pacific Ocean.

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Current Oregon statutory law refers to the line of "ordinary high tide" as the landward boundary of state-owned tidelands.[20] Administratively, the Division of State Lands equates this statutory term with the line of mean high water as defined by the National Ocean Survey, and state publications contain diagrams consistent with this approach.[21]

Oregon has had little recent appellate case law on tidal boundaries,[22] but a 1972 federal court decision[23] notes that both the state and the private parties in the litigation in that court agreed to recognize the United States Supreme Court's 1935 *Borax* rule.[24] Under that rule, the mean of *all* the high waters over an 18.6-year tidal cycle is used as a tidal datum.

The state courts have been less precise in defining the upland/tideland boundary. For example, in 1959 Oregon's highest court, citing many decisions that the state "upon its admission into the union acquired title to the foreshore that then lay between the ordinary high and low water marks," defined tidelands as "lands usually or ordinarily covered and uncovered every 24 hours by the action of the tides,"[25] without referring to any tidal datum.

However, despite some lack of clarity in the case law as to the precise method of locating the upland/tideland boundary for purposes of determining ownership of property, Oregon has a definite line demarcating the dry-sand area that may be subject to public use and in which private littoral owners' rights are limited.[26] As a result of the 1967 Beach Law[27] and the 1969 *Thornton* decision,[28] concerning public rights in the dry-sand area, the vegetation line has assumed increasing importance. The location of this line, defined by statute and surveyed generally at an elevation of 16 feet,[29] is subject to periodic adjustment.[30]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Generally, Oregon follows the usual rule that the legal boundary between uplands and tidelands shifts with accretion and erosion as distinguished from avulsion.[31]

In litigation between the state and a private upland owner, what is the legal effect of artificial changes in the shoreline caused by the owner? In one case, a riparian owner dredged a perpendicular bank of a tidal river, creating a more gradual slope. The result: a narrow strip of tidelands was formed in a previously upland area. In an alternative holding to its principal ruling, the state's highest court said that "the artificial change in the contour of the left bank could be treated as an avulsion, and that if it were an avulsion the state would not acquire title by virtue of the change."[32]

Erosion constitutes "a major hazard along the Oregon coastline," according to a recent state report.[33] The 1978 amendments to the Oregon Coastal Management Program summarize the implementation of comprehensive erosion management policies by state and local governments.[34]

Shoreline Changes: A Legal Lexicon

Like oceanographers and coastal engineers, legislators and judges recognize that coastal processes change the physical location of the shoreline. But some of the legal terminology used in statutes and court decisions to distinguish between the kinds of changes may confuse readers of "The Law of the Coast in a Clamshell."

To help non-attorneys understand how the law classifies shoreline changes, here are brief definitions of some key legal terms.

ACCRETION

Accretion is the *gradual, imperceptible* addition to littoral or riparian land of solid material by water. The result, of course, is that dry land forms in an area previously covered by water and the shoreline moves seaward.

What does the law mean by "imperceptible"? The United States Supreme Court in 1874 said that the legal test of "imperceptibility" is "that though the witnesses may see from time to time what progress has been made, they could not perceive it while the process was going on."

The manner in which the sand, sediment or other material is deposited, not the extent of the land gained, is the critical factor.

The accreted land is termed *alluvion* (sometimes spelled "alluvium"). Although the word "alluvion" refers to the deposit, while "accretion" more precisely denotes the process, the two terms are often used synonymously.

In general, property boundaries change with accretion and the upland owner gains title to the newly formed land. Some jurisdictions, however, follow this rule only when the accretion is due entirely to natural causes.

EROSION

Erosion, the converse of accretion, is the *gradual, imperceptible* wearing away of littoral or riparian land. As a result, the shoreline moves landward.

The courts apply the same test of "imperceptibility" to determine whether erosion has occurred. Generally, property boundaries change with erosion, the upland owner losing title to the previously dry land.

RELICTION

Reliction (sometimes spelled "dereliction") is the *gradual* recession of water formerly covering land, leaving dry land. The practical effect thus is the same as in accretion and the same rule applies as to property boundary changes.

The terms "accretion" and "alluvion" are sometimes used interchangeably with the word "reliction."

SUBMERGENCE

Submergence, the converse of reliction, denotes the *gradual* disappearance of land under water and the formation of a navigable body of water over it. Consequently, the effect is the same as in erosion.

AVULSION

Avulsion refers to *sudden, perceptible* changes in the shoreline or the bed of a river.

The law generally treats avulsive changes differently from the slower processes of accretion, erosion, reliction and submergence. In some jurisdictions, artificial filling by an upland owner is deemed to be the same as an avulsion.

Physically, avulsive changes may result in either a gain or loss of littoral or riparian land. However, the law generally freezes the location of the property boundary where it was before the avulsion.

Most avulsion cases involve violent alterations in rivers, but rapid coastal changes caused by earthquakes, hurricanes or similar severe natural phenomena may be characterized as avulsive.

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Although not a boundary case, one recent decision is noteworthy. In this litigation, the plaintiffs discovered severe erosion problems after entering into a 99-year lease of beachfront property. The court, in a decision departing from the traditional *caveat emptor* ("let the buyer beware") approach, ruled that a land developer can be held liable for negligence if he fails to exercise reasonable care to ascertain whether homesites offered for long-term lease or sale may be subject to such erosion and unfit for residential use.[35]

OREGON'S PUBLIC TRUST DOCTRINE

Unlike courts in California,[36] Florida[37] and New Jersey,[38] the Oregon Supreme Court has relatively narrowly applied the public trust doctrine to tidelands and adjoining uplands.[39]

The court held in 1979 in *Morse* v. *Oregon Division of State Lands*[40] that this doctrine does not prevent landfills in estuaries for nonwater-related public uses. The case involved a permit to fill 32 acres of Coos Bay for an airport runway extension. After the *Morse* decision, the fill and removal statute was amended to codify the court's interpretation of the public trust doctrine.[41]

There is language in *Morse* that could be construed as indicating that Oregon's public trust doctrine does not encompass all recreational use of tidelands. The court suggested that "very casual navigation of the recreational kind"[42] would not be a sufficient public use of the bay's waters on which to base denial of a fill permit application.

Despite this language, it would seem likely that future Oregon decisions involving coastal tidelands will adopt the more liberal approach reflected in cases relying on the public trust concept to uphold public recreational use of lakes and rivers.[43]

PUBLIC ACCESS RIGHTS

Oregon's legislators and courts have actively encouraged public beach access through the enactment of the 1967 Beach Law[44] and decisions such as *State ex rel. Thornton* v. *Hay*.[45]

State coastal access publications call the Beach Law "the central law establishing public rights to dry sand beaches of the ocean shore . . . "[46] and assert that "[a]lthough only approximately half of the Ocean Shore area[47] is in public ownership, *all of it is open to public access by statute* . . . "[48]

In the Beach Law, the Legislative Assembly expressly declares that it is Oregon's public policy to

> " . . . forever preserve and maintain the sovereignty of the state . . . over the ocean shore of the state from the Columbia River on the north to the Oregon-California line on the south so that the public may have the free and uninterrupted use thereof . . . [and where the public's use of the ocean shore] has been legally sufficient to create rights or easements in the public . . . , that it is in the public interest to protect and preserve such public rights or easements as a permanent part of Oregon's recreational resources."[49]

The Beach Law's constitutionality has been upheld by both state[50] and federal[51] courts.

Since passage of the Beach Law, it has been the State of Oregon's goal to provide public beach access sites "at intervals between 1½ to 3 miles, or to major areas inaccessible from other access points because of intervening promontories or other barriers."[52]

The Beach Law contemplates the creation of public rights or easements in privately owned uplands below the vegetation line through the legal concepts of dedication and prescription. However, as already pointed out, the Oregon Supreme Court's 1969 decision in *State ex rel. Thornton* v. *Hay*[53] reflects a novel application of the venerable doctrine of custom to assure public access to the beach.

At common law, seven requirements had to be fulfilled before a custom could be recognized as law.[54] The Oregon court in *Thornton* deftly parried the first requirement—that the custom must be ancient— by modifying the English law to adapt it to this country and by crediting the Indians with using the dry-sand area before Oregon was settled by Europeans. In England the test of what is ancient is a use so long established "that the memory of man runneth not to the contrary"; that in turn is interpreted as meaning the custom must have begun before the coronation of Richard I in 1189.[55] The Oregon court overcame this apparent hurdle by rephrasing the English test:

> " . . . This case deals solely with the dry-sand area of the Pacific shore, and this land has been used by the public as public recreational land according to an unbroken custom running back in time as long as the land has been inhabited.
>
> " . . . So long as there has been an institutionalized system of land tenure in Oregon, the public has freely exercised the right to use the dry-sand area up and down the Oregon coast for . . . recreational purposes . . . .
>
> " . . .
>
> " . . . If antiquity were the sole test of validity of a custom, Oregonians could satisfy that requirement by recalling that the European settlers were not the first people to use the dry-sand area as public land."[56]

By invoking the historic concept of custom, the court clearly was seeking to assure the public right of access to tidelands while avoiding the case-by-case, parcel-by-parcel approach necessary under the implied dedication doctrine sanctioned by California[57] and Texas[58] courts.

The *Thornton* decision cites with approval the language in the Beach Law codifying "a policy favoring the acquisition of public recreational easements in beach lands,"[59] but states that "it is unlikely that the landowners thought they had anything to dedicate, until 1967, when the notoriety of legislative debates about the public's rights in the dry-sand area sent a number of ocean-front landowners to the offices of their legal advisers."[60]

Although the *Thornton* case involved only one parcel, the geographic scope of the ruling is not clear. The decision arguably could be construed as applicable to the dry-sand portion of *all* of Oregon's beaches because of the court's statement that "[o]cean-front lands from the northern to the southern border of the state ought to be

Erratum in "Part VII: The New Jersey Approach"

In the last article in this series, "The Law of the Coast in a Clamshell: Part VII: The New Jersey Approach," *Shore & Beach*, Vol. 50, No. 2, April 1982, pp. 9-14, one of the references contained an error.

Page 13, note 9, 17th line, should read as follows:

> tides, and "low marsh," lying *below* the mean high-tide line and *above* the mean low-tide line,

As corrected, therefore, the complete sentence and citation, referring to a discussion of marshland classification in a law review article by Porro & Teleky, *Marshland Title Dilemma: A Tidal Phenomenon*, 3 Seton Hall L. Rev. 323 (1972), should read as follows:

> These legal commentators, noting there are about 244,000 acres of marshland in the state, underscore the difficulty of classifying this land as either upland or tideland by differentiating between "high marsh," located *above* the mean high-tide line and covered by tidal waters during the spring and extraordinary tides, and "low marsh," lying *below* the mean high-tide line and *above* the mean low-tide line, through an analysis of the marshland biota. *Id.* at 332-333.

treated uniformly."[61] However, such a sweeping application would seem to raise serious constitutional questions as well as running counter to some of the elements of the traditional concept of customary rights.

When beach access cannot be obtained through such legal theories as custom, implied dedication or prescription, the Beach Law empowers the state's Department of Transportation to "acquire ownership of or interests in the ocean shore or lands abutting, adjacent or contiguous to the ocean shore . . . for state recreation areas or access to such areas where such lands are in private ownership."[62]

PRIVATE LITTORAL RIGHTS

Generally, private upland owners in Oregon have the usual littoral rights of access to the waters beneath the adjoining tide and submerged lands, but it appears they must now share these rights with members of the public.

As recently as 1956, it was held that a private upland owner enjoyed a right different from that of the public, a common-law " 'property right [of access to the adjoining waters] analogous to an abutting owner's right of access to a highway. . . . ' "[63] However, the 1967 Beach Law[64] contains a legislative declaration that the dry-sand area seaward of the vegetation line may be subject to a public recreational easement, and the Oregon Supreme Court's 1969 *Thornton* decision[65] arguably can be construed as holding that there is such an easement along the entire coast under the doctrine of custom.

Moreover, the Beach Law provides, in general, that anyone wishing to build an "improvement"[66] seaward of the vegetation line must apply for and obtain a state permit.[67] This requirement is based on a legislative finding that such control is necessary

> "to protect the state recreation areas . . . , to protect the safety of the public using such areas, and to preserve values adjacent to and adjoining such areas, the natural beauty of the ocean shore and the public recreational benefit derived therefrom . . . "[68]

The Parks and Recreation Division administers the permit procedure.[69]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The Division of State Lands is empowered to lease state-owned tide and submerged lands for various purposes, including the exploration and production of oil, gas and other minerals.[70] In one interesting case arising out of a state lease of tidelands surrounding an island in a tidal river, the Oregon Supreme Court said that the lessee rather than the owner of the island would have the right to drive pilings below the low-water mark and to moor logs in the water.[71]

B. Regulatory Functions

Use of coastal zone lands, particularly seaward of the vegetation line, is highly regulated in Oregon. In addition to the permits for improvements required under the Beach Law,[72] state permits must be obtained before dredging in and filling navigable waters, including waters beneath tide and submerged lands.[73]

Comprehensive land-use planning in the coastal zone had its roots in a 1971 statute creating the Oregon Coastal Conservation and Development Commission.[74] The commission was directed to prepare a proposed plan to preserve and develop coastal zone resources.

In 1973 legislators passed the Land Use Planning Act calling for state and local agencies to adopt comprehensive plans.[75] This law established the Department of Land Conservation and Development,[76] which was required to draw up statewide goals and guidelines for use by state and local governments preparing, adopting and amending comprehensive plans.[77] The act also created the Land Conservation and Development Commission,[78] which was mandated to approve these goals and guidelines. Specific adopted goals relate to estuarine areas, tide, marsh and wetland areas, and beaches and dunes.[79]

In May 1977 the Oregon Coastal Management Program became the second such program in the United States to gain federal approval.[80] The program, which was amended in 1978, is administered by the Department of Land Conservation and Development. Under this program, local comprehensive plans, which must meet the statewide goals established pursuant to the Land Use Planning Act, are being developed.[81]

ACKNOWLEDGMENTS

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REFERENCES

1. A recent but undated report entitled *Shorefront Access and Preservation Planning Process* [hereinafter cited as *Shorefront Access*], prepared for the Oregon Department of Land Conservation and Development by Economic Consultants Oregon, Ltd. in cooperation with the state's Department of Transportation, states: "About 72 percent or 262 miles of the 361.9 miles of Oregon coast is usable beach of which 29 percent (76.3 miles) is in state ownership. In addition, 52.2 miles, or 52 percent of the headlands are owned by the state." *Id.* at 24.
2. This law is sometimes referred to as the "Beach Bill." The original law, Ch. 601, 1967 Or. Laws 1448, was amended by Ch. 601, 1969 Or. Laws 1370. Currently, the law is codified at Or. Rev. Stat. § 390.605 *et seq.* For a brief discussion of the law, see "Public Access Rights" and "Private Littoral Rights," *infra*.
3. For a discussion of the definition of this line, see note 7, *infra*.
4. *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P.2d 671 (1969). For a brief discussion of this decision, see "Title to Lands Within the Coastal Zone" and "Public Access Rights," *infra*. For a detailed description of the events leading to the passage of the Beach Law and the *Thornton* case, see McLennan, *Public Patrimony: An Appraisal of Legislation and Common Law Protecting Recreational Values in Oregon's State-Owned Lands and Waters*, 4 Env. L. 317, 356-364 (1974).
5. *Oregon Coastal Management Program* [hereinafter referred to as OCMP] 15 (1976). There are three exceptions to this general description of the coastal zone; in the Umpqua River Basin, the Rogue River Basin and the Columbia River Basin, specific geographic limits are designated. *Ibid.* The zone "ranges in width, excluding the territorial sea, from about 8 to 45 miles, and it includes about 7811 square miles of land area." *Id.* at 16.
6. This classification is used for convenience and consistency with other articles in this series. However, Oregon law sometimes uses the term *submersible lands* as a synonym for tidelands. For example, in Chapter 274 of the Oregon Revised Statutes, "submersible lands" are defined as "lands lying between the line of ordinary high water and the line of ordinary low water of all navigable waters and all islands, shore lands or other such lands held by or granted to the state by virtue of her sovereignty, . . . whether such waters or lands are tidal or nontidal." Or. Rev. Stat. § 274.005(8). See also Or. Rev. Stat. § 274.705(7), defining "tidal submersible lands" as "lands lying below the line of mean low tide in the beds of all tidal waters."
7. This line is now statutorily established and described according to the Oregon Coordinate System. Or. Rev. Stat. § 390.770. In general, the statutory line, as mapped, approximates the edge of vegetation and is at an elevation of 16 feet above the National Geodetic Vertical Datum. (The statute, however, refers to the former nomenclature of this datum: "Sea-Level Datum of 1929." Or. Rev. Stat. § 390.760.) *Shorefront Access*, *supra*, note 1, at 2-3. In areas of headlands and estuaries, a lower elevation is used. Or. Rev. Stat. § 390.760.
8. *State ex rel. Thornton* v. *Hay*, *supra*, 254 Or. 584, 589, 462 P.2d 671, 674.
9. 254 Or. 584, 462 P.2d 671. For a further discussion of this decision, see "Public Access Rights," *infra*.
10. 254 Or. at 587-595, 462 P.2d at 676-678. The court defined the "vegetation line" as "the seaward edge of vegetation where the upland supports vegetation," and, for purposes of its decision, treated that line as identical with the 16-foot-elevation contour line (an engineering line discussed in note 7, *supra*) and with "[t]he extreme high-tide line and the high-water mark." *Ibid.*
11. As is discussed under "Public Access Rights," *infra*, the geographic scope of the *Thornton* ruling is not clear and subsequent case law has not fully clarified that point. See note 61, *infra* and accompanying text.
12. See "Private Littoral Rights" and "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
13. *Shively* v. *Bowlby*, 152 U.S. 1, 49-50 (1894); Act for the Admission of Oregon Into the Union, 11 Stat. 383. In *Shively*, the United States Supreme Court stated: "The title of the United States to Oregon was founded upon original discovery and actual settlement by citizens of the United States, . . . as well as upon the cession of the Louisiana Territory by France in the treaty of 1803, and the renunciation of the claims of Spain in the treaty of 1819. . . ." 152 U.S. at 50. The state was carved out of the Oregon Territory.
14. For a brief discussion of the equal-footing doctrine, see the first article in this series, *Shore & Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
15. The Tidelands Sales Act of 1872, 1872 Or. Laws 129, authorized sales of tidelands of bays, harbors and inlets along the seacoast, and by an 1874 amendment, 1874 Or. Laws 77, conveyances of "any land abutting or fronting upon or bounded by the shore of the Pacific Ocean" were permitted. For a detailed discussion of these laws, see McLennan, *supra*, note 4, 4 Env. L. at 345-346. For current law, see Or. Rev. Stat. § 274.040(2).
16. Ch. 493, 1947 Or. Laws 847. This statute also purports to "vest in the State ownership of the shore [between the lines of ordinary high and extreme low tide] excepting such portion or portions as may have heretofore been disposed of by the State." As one commentator correctly points out: "Since ownership of the shore underlying tidal waters was clearly with the state, subject to divestment after statehood, it is unclear what was added or intended by the declaration that the lands were 'vested.'" McLennan, *supra*, note 4, 4 Env. L. at 347 n. 246. A 1965 statute qualifies the prohibition against sale by adding "except as provided by law." Ch. 368, 1965 Or. Laws 764. Current law authorizes the sale of tidelands in limited situations. See Or. Rev. Stat. § 274.040(2).
17. Or. Rev. Stat. § 390.615.
18. An 1899 law, 1899 Or. Laws 3, applied only to the Pacific shore from the Columbia River to the southern boundary of Clatsop County, the state's most northwesterly county. The land involved in *State ex rel. Thornton* v. *Hay*, *supra*, 254 Or. 584, 462 P.2d 671, was located in Clatsop County, and the court cited this statute in its opinion. In 1913 the entire coast from the Columbia to the California border was designated as a public highway. Ch. 47, 1913 Or. Laws 80. For a discussion of these laws and later statutes enacted before the 1967 Beach Law, see McLennan, *supra*, note 4, 4 Env. L. at 346-348.
19. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
20. Or. Rev. Stat. § 390.615. This statute states that "[o]wnership of the shore of the Pacific Ocean between *ordinary high tide* and *extreme low tide*, . . . [between the Washington and California borders, except for portions disposed of before July 5, 1947] is vested in the State of Oregon, and is declared to be a state recreational area. . . ." (Emphasis added.) A statute defines "submersible lands," whether tidal or nontidal, as "lying between the line of *ordinary high water* and the line of *ordinary low water*." Or. Rev. Stat. § 274.005(8). (Emphasis added.) See note 6, *supra*.
21. Or. Adm. Rule 141-82-005; telephone conversations on April 12, 1982, with Stan Hamilton and Perry Lumley, Division of State Lands, State of Oregon. See also *Shorefront Access*, *supra*, note 1, at 78; *Oregon Coastal Management Program Amendments* [hereinafter referred to as OCMP Am.], App. B (September 1978). Each publication contains a profile depicting a tidal datum with the label "Ordinary High Tide or M.H.W." at an elevation of 7.62 feet above the mean lower-low-water datum. Although the publications do not expressly state that the elevation of mean high water is based on NOS data, the relationship between that elevation and the plane of reference for nautical charts shows the use of NOS data.
22. In a recent appellate court decision, a surveyor's meander line description was held to control over the mean high-tide line in determining the landward boundary of tidelands because the evidence showed an intention to use the meander line. *G. R. Kirk Co.* v. *Port of Newport*, 40 Or. App. 49, 594 P.2d 845 (1979). However, this is not the usual rule in Oregon; the natural monument generally prevails over the meander line.
23. *Hay* v. *Bruno*, 344 F. Supp. 286, 287 (D. Or. 1972).
24. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). See *Shore & Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and Vol. 49, No. 2, April 1981, p. 21.

25. *State Land Board* v. *Sause*, 217 Or. 52, 67, 342 P.2d 803, 811 (1959). See also *Winston Bros. Co.* v. *State Tax Comm'n*, 156 Or. 237, 247, 62 P.2d 7, 9 (1936); *Hume* v. *Rogue River Packing Co.*, 51 Or. 237, 243, 92 P. 1065, 1068 (1907).
26. For a brief discussion of state regulation of lands seaward of the vegetation line, see "Private Littoral Rights," *infra*.
27. Or. Rev. Stat. § 390.605 *et seq.* See note 2, *supra*, and "Public Access Rights" and "Private Littoral Rights," *infra*.
28. 254 Or. 584, 462 P.2d 671. See note 4, *supra*, and "Public Access Rights," *infra*.
29. See note 7, *supra*. There are some exceptions to the use of the 16-foot contour. Or. Rev. Stat. § 390.760.
30. State agencies are "directed to periodically reexamine the line . . . for the purpose of obtaining information and material suitable for a re-evaluation and re-definition, if necessary, of such line so that the private and public rights in the ocean shore shall be preserved." Or. Rev. Stat. § 390.755.
31. *State Land Board* v. *Sause*, *supra*, 217 Or. 52, 78-100, 342 P.2d 803, 818-826; *Wilson* v. *Shively*, 11 Or. 215, 4 P. 324, 325-326 (1884); Comment, *Avulsion and Accretion — Emphasis Oregon*, 3 Willamette L.J. 345, 355 (1965). One of the most important cases arising in Oregon concerning the distinction between the legal effect of accretion and erosion, on the one hand, and the sudden change known as avulsion, on the other hand, involved a *nontidal* stretch of a navigable river, not the seacoast. In *State Land Board* v. *Corvallis Sand & Gravel Co.*, 429 U.S. 363, 370-371 (1977), the U.S. Supreme Court held that state rather than federal law is controlling as to the legal effect of physical changes in the waterward boundary of lands conveyed under a federal patent. But the court did not expressly overrule language in *Hughes* v. *Washington*, 389 U.S. 290, 293 (1967), which held that federal law instead of state law governs the effect of shoreline changes on the boundary of oceanfront property conveyed by the United States before Washington entered the Union. A case is now pending in the U.S. Supreme Court in which California is seeking the express overruling of the *Hughes* holding as to the seacoast. *State of California* v. *United States*, No. 81-89 (filed July 7, 1981). Presumably, the court's decision in this case will clarify the effect of the *Corvallis* opinion with respect to the type of oceanfront property involved in the *Hughes* case. For the subsequent Oregon Supreme Court decision in the *Corvallis* case, see 283 Or. 147, 582 P.2d 1352 (1978); see also Comment, *After the Flood, Who Owns the Bed of the River? State Ownership Overwhelmed by the Avulsion Rule*, 60 Or. L.Rev. 273 (1981).
32. *State Land Board* v. *Sause*, *supra*, 217 Or. 52, 102, 342 P.2d 803, 827-828, as discussed in *State Land Board* v. *Corvallis Sand & Gravel Co.*, *supra*, 283 Or. 147, 164, 582 P.2d 1352, 1362. The court in *Sause* said, however, that a riparian owner cannot deprive the state of land by filling the area adjacent to his property. 217 Or. at 99, 342 P.2d at 803. For a discussion of the *Sause* case, see Comment, *supra*, note 31, 3 Willamette L.J. at 352, 353-354.
33. Or. State Soil & Water Comm'n, 2 *Inventory: Oregon Coastal Shoreline Erosion* 2 (1978). This report cites a 1976 study identifying 117 miles of erosion along the coast, "including 56 where erosion was aggravating landslide or flooding hazards, threatening roads and buildings."
34. OCMP Am., *supra*, note 21, "Shoreline Erosion Planning Process." See Or. Rev. Stat. § 197.405; Hildreth, *Coastal Natural Hazards Management*, 59 Or. L.Rev. 201, 220, 228 (1980).
35. *Beri* v. *Salishan Properties, Inc.*, 282 Or. 569, 578-579, 580 P.2d 173, 176-177 (1978), discussed in Hildreth, *supra*, note 34, 59 Or. L.Rev. at 213-214. See also *Cook* v. *Salishan Properties, Inc.*, 279 Or. 333, 569 P.2d 1033 (1977).
36. For a brief discussion of California cases, including *Marks* v. *Whitney*, 6 Cal. 3d 251, 98 Cal. Rptr. 790, 491 P.2d 374 (1971), see the third article in this series, *Shore & Beach*, Vol. 49, No. 2, April 1981, pp. 22-23.
37. For a brief discussion of Florida cases, see the fourth article in this series, *Shore & Beach*, Vol. 49, No. 3, July 1981, p. 16.
38. For a brief discussion of New Jersey cases, including *Borough of Neptune City* v. *Borough of Avon-by-the Sea*, 61 N.J. 296, 294 A.2d 47 (1972), see the seventh article in this series, *Shore & Beach*, Vol. 50, No. 2, April 1982, p. 11.
39. Under the public trust doctrine, the public has the right to use tidal waters irrespective of whether the underlying lands are publicly or privately owned. The Oregon court's decision in *State ex rel. Thornton* v. *Hay*, *supra*, 254 Or. 584, 462 P.2d 671, was based on the theory of custom rather than the public trust doctrine. See "Public Access Rights," *infra*. However, in the opinion of one of the justices, who specially concurred in the result, the *Thornton* decision should have been based on the doctrine of *jus publicum* instead of the doctrine of customary rights. 254 Or. at 600, 462 P.2d at 678. *Jus publicum* is a term used by jurists and legal scholars to refer to the public rights in navigable waters.
40. 285 Or. 197, 590 P.2d 709 (1979). For earlier related decisions, see *Morse* v. *Division of State Lands*, 31 Or. App. 1309, 572 P.2d 1075 (1977); *Morse* v. *Oregon Division of State Lands*, 34 Or. App. 583, 581 P.2d 520 (1978).
41. Or. Rev. Stat. § 541.605 *et seq.*, as amended by Ch. 564, 1979 Or. Laws 704. For critical legal commentaries on this statutory change and the 1979 *Morse* decision, see Comment, 10 Env. L. 675 (1980); Comment, *Easing Water Resource Fill and Removal Restrictions*, 16 Willamette L.Rev. 359 (1979).
42. *Morse* v. *Oregon Division of State Lands*, *supra*, 285 Or. at 201, 590 P.2d at 711. (Footnote omitted.)
43. See cases cited in *State ex rel. Thornton* v. *Hay*, *supra*, 254 Or. at 600-601, 482 P.2d at 679 (Denecke, J., specially concurring); McLennan, *supra*, note 4, 4 Env. L. at 328-330. The court could cite various statutory provisions and the Oregon Coastal Management Program, as well as lake and river case law, to support such a ruling.
44. Ch. 601, 1967 Or. Laws 1448. The Beach Law, which was amended in 1969, Ch. 601, 1969 Or. Laws 1370, now is codified at Or. Rev. Stat. § 390.605 *et seq.* See generally McLennan, *supra*, note 4, 4 Env. L. at 356-358, 363-364; *Shorefront Access*, *supra*, note 1 at 15-27.
45. 254 Or. 584, 462 P.2d 671.
46. *Shorefront Access*, *supra*, note 1, at 15.
47. "Ocean shore" is defined in the Beach Law as meaning "the land lying between *extreme low tide* of the Pacific Ocean and the *line of vegetation* as established and described . . ." Or. Rev. Stat. § 390.605(2). (Emphasis added.) The ocean shore thus contains both tidelands and an upland strip.
48. OCMP Am., *supra*, note 21, "Shorefront Access and Protection," 1. (Emphasis added.) See also OCMP, *supra*, note 5, at 1. However, litigation may arise in certain areas where private littoral owners have acted to prevent the public from gaining access across their uplands to the adjoining tidelands or from otherwise using the uplands.
49. Or. Rev. Stat. § 390.610(1), (2). The Beach Law's policy of public access expressly refers to public rights or easements in that portion of the privately owned uplands within the ocean shore, *i.e.*, seaward of the vegetation line. See definition of "vegetation line" (16-foot contour line), *supra*, note 7.
50. In *State Highway Commission* v. *Fultz*, 261 Or. 289, 292 n.2, 491 P.2d 1171, 1172 n.2 (1971) (state's denial of application to complete construction of road and revetment on dry-sand beach upheld), the Oregon Supreme Court said that its decision in *State ex rel. Thornton* v. *Hay*, *supra*, 254 Or. 584, 462 P.2d 671, disposed of the constitutionality of the Beach Law.
51. In *Hay* v. *Bruno*, *supra*, 344 F.Supp. 286, the United States District Court for the District of Oregon rejected the argument by the same private landowners who lost the *Thornton* case in the state Supreme Court. The owners argued that *Thornton*, coupled with the enactment of the portion of the Beach Law (Or. Rev. Stat. § 360.610(3)) vesting a public recreational easement in the dry-sand area, violated the constitional prohibition against the taking of private property without just compensation.
52. *Shorefront Access*, *supra*, note 1, at 19. See also OCMP Am., *supra*, note 21, "Shorefront Access and Protection," 1.
53. 254 Or. 584, 462 P.2d 671. See brief discussion under "Title to Lands Within the Coastal Zone," *supra*.
54. Blackstone said that a valid custom would be found if the practice was (a) ancient, (b) continuous and uninterrupted, (c) peaceable and free from dispute, (d) reasonable, (e) limited in scope, and (f) consistent with other customs. 1 W. Blackstone, Commentaries *75-*78 (Cooley's 3d ed. 1884).
55. This test is also referred to as "time out of mind or the memory of man." 1 W. Blackstone, *supra*, note 54, at *76; *Chapman* v. *Smith*, 28 Eng. Rep. 324, 326, 327 (Ch. 1754).
56. *State ex rel. Thornton* v. *Hay*, *supra*, 254 Or. at 595-598, 462 P.2d at 676-678. (Footnote omitted.)
57. For a brief discussion of *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal. 3d 29, 84 Cal. Rptr. 162, 465 P.2d 50 (1970), see the third article in this series, *Shore & Beach*, Vol. 49, No. 2, April 1981, p. 23.
58. For a brief discussion of *Seaway Co.* v. *Attorney General*, 355 S.W. 2d

923 (Tex. Civ. App. — Houston 1964, *writ ref'd n.r.e.*), see the fifth article in this series, *Shore & Beach*, Vol. 49, No. 4, October 1981, p. 28.

59. 254 Or. at 594, 462 P.2d at 676. The cited statute is Or. Rev. Stat. § 390.610.

60. 254 Or. at 592-593, 462 P.2d at 675.

61. 254 Or. at 595, 462 P.2d at 676. For a legal commentator's criticism of a broad interpretation that the court's ruling applies to *all* beaches in Oregon, see Comment, *Public Access to Beaches*, 22 Stan. L.Rev. 564, 584-585 (1970). See also Comment, *The English Doctrine of Custom in Oregon Property Law: State ex rel. Thornton v. Hay*, 4 Env. L. 383 (1974). The Oregon Supreme Court applied the *Thornton* rule in another locale in which the trial court found a dry-sand area had been used by the public for recreational purposes since 1899. *State Highway Commission v. Fultz, supra*, 261 Or. 289, 491 P.2d 1171. However, it has been held that the recreational easement will not be judicially recognized under the *Thornton* rule in areas *landward* of the vegetation line. The state's Highway Commission attempted to assert public recreational rights in the privately owned sand dunes *above* the vegetation line, but the Court of Appeals held that such rights had not been established under various legal theories. *State Highway Commission v. Bauman*, 16 Or. App. 275, 517 P.2d 1202 (1974). With respect to the doctrine of custom, the court pointed out that there was no evidence that proved that similar privately owned dune areas along the Oregon coast had been customarily used for recreational purposes. See related prior case, *State ex rel. Johnson v. Bauman*, 7 Or. App. 489, 492 P.2d 284 (1971) (attorney general has no authority to bring suit to declare public recreational easement in privately owned oceanfront land).

62. Or. Rev. Stat. § 390.630.

63. *McCarthy v. Coos Head Timber Co.*, 208 Or. 371, 387-388, 302 P.2d 238, 246 (1956), discussed in Comment, *The Right of Access to Navigable Waters by Riparian Land Owners*, 3 Willamette L.J. 63, 65-66 (1964).

64. Or. Rev. Stat. § 390.605 *et seq.* See "Public Access Rights," *supra*.

65. 254 Or. 584, 462 P.2d 671. See "Title to Lands Within the Coastal Zone" and "Public Access Rights," *supra*.

66. This term is defined as including "a structure, appurtenance or other addition, modification or alteration constructed, placed or made on or to the land." Or. Rev. Stat. § 390.605(1).

67. Or. Rev. Stat. §§ 390.640, 390.650, 390.655, 390.658.

68. Or. Rev. Stat. § 390.640(1).

69. Or. Rev. Stat. §§ 390.650, 390.655.

70. Or. Rev. Stat. §§ 273.551, 274.611 *et seq.*, 274.705 *et seq.*

71. *Smith Tug & Barge Co. v. Columbia-Pacific Towing Corp.*, 250 Or. 612, 637-644, 443 P.2d 205, 217-220 (1968). However, the lease was held invalid under the facts of the case.

72. Or. Rev. Stat. § 390.605 *et seq.* See "Private Littoral Rights," *supra*.

73. Or. Rev. Stat. §541.605 *et seq.* See "Oregon's Public Trust Doctrine," *supra*; McKenna, *supra*, note 4, 4 Env. L. at 351-356; Comment, *supra*, note 41, 10 Env. L. 675; Comment, *supra*, note 41, 16 Willamette L.Rev. 359.

74. See McKenna, *supra*, note 4, 4 Env. L. at 368-369. This commission no longer exists.

75. Ch. 80, 1973 Or. Laws 127.

76. Or. Rev. Stat. § 197.075 *et seq.*

77. Or. Rev. Stat. § 197.225.

78. Or. Rev. Stat. § 197.030 *et seq.*

79. Or. Rev. Stat. § 197.230; OCMP, *supra*, note 5, at 7-8, 23-27, 343-349.

80. The program was prepared pursuant to the federal Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 *et seq.*

81. As of February 1982, of Oregon's 42 coastal jurisdictions, three had plans approved by both federal and state authorities and two others had plans approved by the state.

The Law of the Coast in a Clamshell*

Part IX: The Louisiana Approach

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Today's Louisiana coastal law reflects many diverse elements, ranging from ancient Roman legal doctrines on communal ownership of the seashore to 31 years of litigation in the United States Supreme Court between the Federal Government and the state affecting their revenues from the Union's most extensive offshore oil and natural gas operations.

By a quirk of history dating from the Louisiana Purchase in 1803, Louisiana is the only state to follow the early Roman law of communal ownership of the seashore and of tidal boundaries.[1] This boundary rule has been criticized because the state adjoins the open seas of the Gulf of Mexico, not the landlocked and virtually tideless Mediterranean Sea, where the Roman law originated.

The Bayou State's courts have struggled with applying the rule along a largely marshy open coast[2] and in deciding whether such bodies of water as Lake Pontchartrain are arms of the sea instead of true inland lakes.[3]

For more than three decades, the state and the Federal Government have engaged in a bitter legal dispute over how far Louisiana's jurisdiction over submerged lands extends into the Gulf.[4] The prize: a huge pool of petroleum, now being tapped further and further seaward of the state's Supreme Court-adjudicated boundary.[5]

With New Orleans already the nation's second largest port,[6] Louisiana is truly in the vanguard of new shipping technology. Superport, a massive deepwater terminal off the state's coast, may represent the wave of the future for handling the fruits of offshore petroleum drilling.[7]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Louisiana's coastal zone is defined in the State and Local Coastal Resources Management Act of 1978 (Act 361) as "the coastal waters and adjacent shorelands within the boundaries of the coastal zone . . . which are strongly influenced by each other, and in proximity to the shorelines, and uses of which have a direct and significant impact on coastal waters."[8] The landward boundary is a line administratively delineated in accord with the act.[9]

The coastal zone, which includes all or part of 18 parishes (counties),[10] may be divided conveniently into uplands, tidelands and submerged lands.[11]

A. Uplands

Most of the state's coastal zone uplands are privately owned,[12] with chains of title originating from the Federal Government and the predecessor French and Spanish governments.[13] The seaward boundary of the upland parcel may depend on the source of title to the parcel.[14]

Louisiana has more than a quarter of the nation's coastal wetlands,[15] extending "from the Sabine River on the west to the Pearl River on the east and [including] most of the land south of [the Interstate highway linking Lake Charles, Baton Rouge and New Orleans] to the Gulf of Mexico across the entire state."[16]

The state's wetlands areas have been characterized as a "battleground" between the competing interests of developers and environmentalists.[17] Recently, however, some proposals to mitigate the loss of wetlands have been approved, and these plans now are being implemented.[18] Nevertheless, the seashore is still eroding due to both natural and manmade causes.[19]

B. Tidelands

Under the equal-footing doctrine,[20] Louisiana assumed title to the tidelands within its borders upon its admission to the Union on April 8, 1812.[21] The Department of Natural Resources manages the state-owned tidelands.[22]

C. Submerged Lands

The dispute over ownership and control of Louisiana's oil-rich offshore lands seaward of the tidelands has

This is the ninth in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Louisiana concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California. *© 1982 by Peter H. F. Graber. The author also asserts copyright protection for the first eight articles in the series.*

embroiled the state and Federal Government for decades. In 1937 the state enacted legislation in an attempt to expand its coastal boundary seaward 27 miles in the Gulf of Mexico.[23]

The Supreme Court in 1950 applied its earlier decision involving California[24] to Louisiana. The court held that the Federal Government instead of the state has paramount rights in the submerged lands, including full dominion over oil and other resources in the underlying soil.[25]

Congress reacted to the Supreme Court decisions against Louisiana and other coastal states by passing the Submerged Lands Act of 1953.[26] Under this act, the Federal Government relinquished its title claims to submerged lands within the boundaries of a state when it joined the Union or as previously approved by Congress, but not extending more than 3 marine leagues (9 geographical miles) for Gulf states.

However, this statute failed to resolve Louisiana's dispute with the Federal Government over the territorial sea. In 1960 the U.S. Supreme Court rejected the state's claim to a 9-mile-wide belt, ruling that it was entitled to only 3 miles.[27] Nine years later the justices again thwarted Louisiana's "effort to maximize its territorial ownership," in a case ruling against the state on "two questions of critical importance for understanding the legal implications of coastal erosion":

> "First, the Court decided that international law must be applied to determine Louisiana's coastline. The net effect of this decision was to minimize Louisiana's offshore claims. Second, and more important, the Court declared Louisiana's coastline to be *ambulatory*. This means Louisiana's baseline (from which the territorial sea is measured) can move landward as the coastline erodes, depriving Louisiana of substantial offshore oil revenue."[28]

For Louisiana, the financial stakes in this lengthy, bitter controversy have been huge. As offshore drilling technology advanced, allowing oil and gas exploration and production from rigs further offshore, the amount of money in the petroleum pot expanded dramatically.

While the original 1950 Louisiana decision "concerned 'approximately $42,000,000 in cash bonuses and rentals, and over a million dollars in royalties,' [by the time of] the 1969 Louisiana decision, the contestants vied for over one billion dollars which had accumulated in escrow since 1956."[29]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Louisiana's civil-law heritage is reflected in its rules on the legal boundaries between privately owned uplands and sovereign lands underlying tidal waters. Louisiana still follows the early Roman law, which proclaimed the sea and the seashore *res communes*, or "common to all," and not subject to private ownership.[30]

Article 451 of the Louisiana Civil Code, as revised in 1978,[31] states: "Seashore is the space of land over which the waters of the sea spread in the highest tide of the winter season." This provision is substantially the same as in earlier laws dating back to 1808, a decade before Louisiana's statehood.[32]

Theoretically, therefore, Louisiana has a more landward private public tidal boundary line than the majority of the coastal states, which follow the English common-law principle, *i.e.*, that the ordinary high-water mark (or the line of mean high water) is the boundary.[33] The only states with similarly landward boundaries are Hawaii, with its unusual aboriginal concept that the boundary is marked by the upper reaches of the wash of the waves,[34] and parts of Texas, where the line of mean higher high water is used when the littoral parcel's title originates from a pre-1840 conveyance.[35]

Use of the "highest tide of the winter season" as Louisiana's property boundary has been criticized by some legal writers. A 1934 comment states: "This [code] provision, thoughtlessly borrowed from the Roman law, is obviously ill-suited to Louisiana, where a coastline of marsh lands, and higher water in the summer than in the winter season, are the usual occurrence."[36] Noting that modern French and Spanish civil codes use the highest tides of the *year*, not just the winter, to determine the boundary, the critique concludes:

> "With these different conceptions of seashore in mind, it is difficult to see why the drafters of the Louisiana Civil Code of 1808 chose to follow the Roman definition, which was applicable to the landlocked and almost tideless Mediterranean, but which did not suit the needs of Louisiana, bordering as it does on the open Gulf. Article 451, however, clearly consecrates the Roman rule in Louisiana."[37]

Louisiana's courts have construed "the waters of the sea" as meaning that portion of the sea that washes the open coast, but excluding the "combined salt and fresh waters which at high tide overflow the banks of an adjacent bay, bayou or lake."[38] To be part of the statutory "seashore," the lands must be "*directly* overflown by the tides"; consequently, "not all lands subject to tidal overflow are 'seashore'."[39]

The Louisiana Supreme Court has also held that Lake Pontchartrain, the large body of water along New Orleans' northern flank, is an arm of the sea, and thus subject to the "open coast" rule.[40] This concept, which affects the legal consequences of accretion to the lake's shores, has been criticized. It has been pointed out that the "shores are certainly not part of the 'open coast,' nor are its waters saline, or affected by the tides to any serious degree."[41]

While the old Roman legal principle embodied in Article 451 of the Civil Code has been generally applied along the open coast, one of the Lake Pontchartrain cases[42] has been cited by some authorities for the proposition that upland parcels stemming from French and Spanish grants are bounded by the ordinary high-water mark instead of the line of "the highest tide of the winter season."[43]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Unlike other coastal states, Louisiana does *not* give the private littoral owner the benefit of any accretion, whether natural or manmade, to his upland; "any

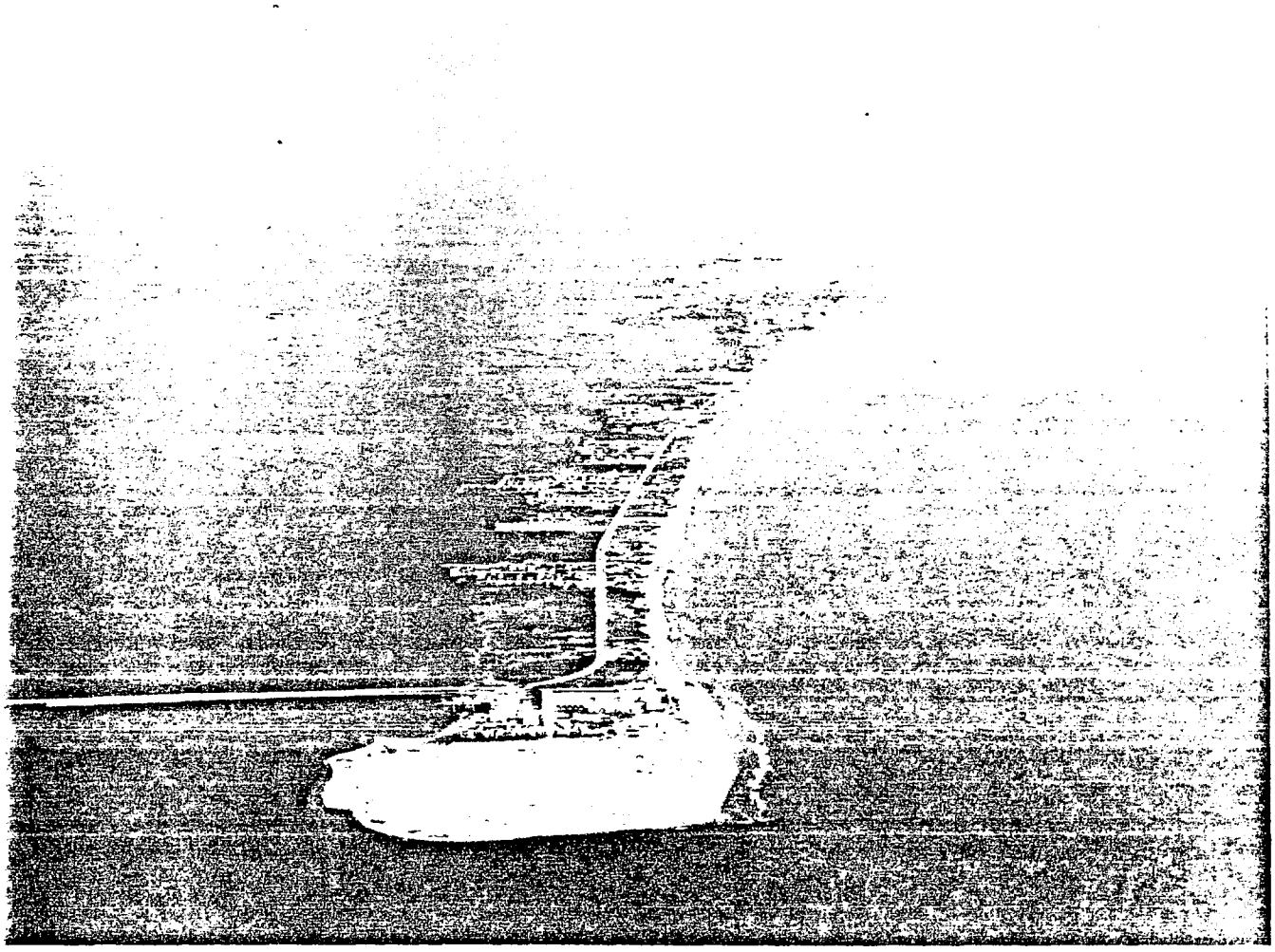

Fig. 1 Aerial view of Grand Isle, one of Louisiana's barrier islands, which help protect the marshy coast from erosion. Containing one of the state's favorite shoreline recreational areas, the island also serves as a base for the offshore oil industry and as a fishing port. (Photograph by U.S. Army Corps of Engineers.)

accretions along the seashore are property of the state."[44]

Moreover, "Louisiana courts have held that ownership of any seashore that erodes to become sea bottom is transferred to the state[45] . . . . The littoral landowner is placed in a 'no-win' situation . . .: if his land is eroding, he loses ownership to the state; if his land is accreting, he becomes separated from the ocean by a strip of state-owned land."[46]

For at least four decades, erosion has been a severe problem along Louisiana's coast. Shoreline erosion, along with such other factors as marsh deterioration and canal construction, has resulted in a total land loss since 1940 of "500 square miles, [representing] about one half the total area of Rhode Island."[47]

The Draft Environmental Impact Statement and Proposed Louisiana Coastal Resources Program, prepared in 1979 and a forerunner to the 1980 final EIS and federally approved program, contains a detailed discussion of shoreline erosion. It warns: "Louisiana is now losing more land than any other state."[48] The document, while pointing out that a "complex mixture of man's activities and natural factors" have caused the land loss, also states: "Even without man's activities, erosion would certainly occur along some sections of the coast."[49]

Various guidelines promulgated under the Louisiana State and Local Coastal Management Act of 1978 (Act 361)[50] address the erosion problem. The guidelines, first approved by the Louisiana Coastal Commission, then by legislative committees and finally by the governor in 1980, state that it is "the policy of the coastal resources program" that "all uses and activities shall be planned, sited, designed, constructed, operated and maintained to avoid to the maximum extent practicable significant . . . land loss, erosion and subsidence."[51]

The importance of the loss of Louisiana's wetlands[52] is closely related to seacoast erosion. Grand Isle (Fig. 1) is one of the barrier islands that "provide natural protection for marshes from storm surge and hurricanes, but [which] are rapidly eroding."[53] Among the causes of such erosion are the inadequate "supply of sand and sediment being carried to the sea by coastal rivers" and the widening of "tidal passes between barrier islands . . . to the detriment of the estuaries and coastal marshes."[54]

Economically, shoreline erosion has grave consequences for Louisiana. This is partly because of the U.S. Supreme Court's decision that the boundary line between state submerged lands and federally controlled offshore lands is an ambulatory line, moving landward if the baseline from which it is measured erodes.[55] As a commentator recently pointed out:

> "The retreating shoreline resulting from erosion will cause Louisiana to suffer a significant decrease in revenue received from the oil industry because the state is limited to revenue derived from production within three miles of the shoreline. It is estimated that if erosion caused the shoreline to recede one mile, Louisiana would lose $36.5 million in severence taxes annually to the federal government."[56]

Efforts are being made to alleviate the problem. "Recognizing the catastrophic problem that erosion presents to the state, [the governor] recently signed into law a program to set up a $35 million Coastal Environmental Protection Trust Fund to halt coastal erosion."[57]

LOUISIANA'S PUBLIC TRUST DOCTRINE

Although Louisiana's legal heritage—with its civil-law roots[58] as opposed to the English common law adopted by other coastal states—is singularly unusual, the public trust doctrine[59] has been applied recently to the Bayou State's navigable waters.

"A breakthrough in the area of public trust litigation occurred in 1975, when the Louisiana Supreme Court decided the landmark case of *Gulf Oil Corp. v. State Mineral Board*."[60] In that case, the court voided patents to the bottoms of certain waterbodies in Plaquemines Parish,[61] "holding that the lands . . . may not be privately owned, and cannot be alienated by the state."[62] The justices "concluded that [the] state owns the beds of navigable waters 'only in the capacity of trustee for the interest of the people of the state.' "[63]

According to a legal commentator:

> "At the least, the *Gulf Oil* decision shows a judicial predisposition to protect the public lands of Louisiana from ill-considered alienations by the legislature. If properly nutured by future holdings, the *Gulf Oil* decision could prove an even greater contribution to the development of public trust law in Louisiana."[64]

It has been asserted that, for public trust purposes, Article IX, Section 3 of the state's 1974 Constitution, which provides that the state may not sell public lands, "must be interpreted somewhat more broadly than [its] words permit literally; . . . that is, the provision must be read to prevent any person from interfering with the public use, or in any way diminishing the value of the public trust."[65]

The term "public trust," as employed in various Louisiana statutes,[66] has a different meaning than the same words when they are used in describing the so-called tidelands trust. "As an essentially English concept, the public trust doctrine is difficult to engraft into the Louisiana [statutory] scheme; . . ."[67]

PUBLIC ACCESS RIGHTS

The question of the public's rights of access to tidal waters—a controversial issue in such states as California,[68] New Jersey,[69] Oregon[70] and Texas[71] has, until recently, received scant judicial or legislative attention in Louisiana. This may be due in part to the fact that the state has hardly any sandy beaches along the Gulf of Mexico. Other geographical and historical factors are probably also partly responsible for the lack of interest in the access question.

As the state's 1979 Draft Environmental Impact Statement puts it:

> "With its many bays, coastal lakes and marshes, Louisiana has a tremendous amount of shoreline . . . . There is a great potential for public recreation along the coast, but this potential has not been fully realized for several reasons. One reason . . . is the extent of the coastal wetlands which, following the shore, reach ninety miles inland, rendering landward access

difficult."[72]

Historically, Louisiana's civil-law tradition in theory has operated to protect the public's coastal access rights. The more landward extent of public tidelands ownership (compared to that of states following the common-law rule), coupled with the state's title to accreted lands, means that access along much of the Gulf coast theoretically is available to the public.[73] From a practical viewpoint, however, coastal marshes impede direct landward access to many shoreline areas.[74]

The Louisiana State and Local Coastal Resources Management Act of 1978 (Act 361) expresses legislative concern about many coastal zone issues, including the enhancement of "opportunities for the use and enjoyment of the recreational values of the coastal zone."[75] The Louisiana Coastal Resources Program includes guidelines, approved in 1980 and intended to implement the policies and goals of Act 361.[76] Guidelines 1.6[77] and 5.3[78] expressly relate to public access in coastal areas, an important element in fostering recreational use of tidal waters and lands.

PRIVATE LITTORAL RIGHTS

Louisiana's private littoral owners do not enjoy the usual right to alluvion, or accreted land, even if it forms naturally.[79] Similarly, it appears that they do not have some other rights typically recognized in most coastal states.

Private owners must obtain state Department of Natural Resources permits "to construct, alter, improve, extend, or maintain any wharf, pier, dock, bulkhead, landfill, structure, or other encroachment."[80] However, subject to various exceptions,

> ". . . [o]wners of land contiguous to and abutting navigable waterbottoms belonging to the state . . . have the right to reclaim or recover land, including all oil, gas, and mineral rights, . . . lost through erosion by action of this navigable waterbody occurring on and after July 1, 1921, . ."[81]

"Reclamation" as defined in this law includes filling tidal land, other than beds of rivers, "above the level of ordinary high water."[82]

In addition, under rules governing coastal use permits, there are a number of activities not requiring permits, *e.g.*, construction of residences and, in general, "[a]ctivities occurring wholly on lands five feet or more above sea level or within fast lands that do not normally have direct and significant impacts on coastal waters."[83]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

Louisiana's Department of Natural Resources may lease the state's tide-flowed lands and waterbottoms for the development of oil, gas and other minerals.[84]

The Office of Coastal and Marine Resources in the Department of Wildlife and Fisheries is empowered to lease and regulate "the use of water bottoms for cultivation and propagation of oysters . . . and [to] control . . . the shrimp fishery and shrimp industry . . . ."[85]

B. Regulatory Functions

With the approval of the Louisiana Coastal Resources Program in 1980, the state is implementing the coastal use permit system for various regulated activities authorized under the Louisiana State and Local Coastal Resources Management Act of 1978 (Act 361).[86] Administrative rules and procedures for the permits have been adopted,[87] and the coastal management section of the Division of State Lands in the Department of Natural Resources has granted numerous permit applications.[88]

This 1978 law and Act 705 passed in 1977[89] were the culmination of a lengthy and controversial effort to create a Louisiana coastal zone management mechanism. The effort dates from 1970, when "the Louisiana Coastal Commission, a southwest Louisiana regional authority, was rechartered to concern itself with long-range water resource management problems of the region including navigation improvement, pollution abatement, erosion control and water management."[90]

Although the parishes or local governments have a big role in Louisiana's coastal zone management,[91] various state agencies in addition to the coastal management section, Division of State Lands, Department of Natural Resources, are involved in various facets of coastal zone planning and regulation.[92]

The Louisiana Coastal Resources Plan, largely based on the State and Local Coastal Management Act of 1978 (Act 361), was approved by the Federal Government on September 19, 1980, during the "Year of the Coast."

ACKNOWLEDGMENTS

The author is grateful to Joel L. Lindsey, coastal management section administrator, Division of State Lands, Department of Natural Resources, State of Louisiana, and Paul Hribernick, editor, and Joseph F. Wills and April R. Snellgrove, managing editors, *Louisiana Coastal Law*, Sea Grant Legal Program, Paul L. Hebert Law Center, Louisiana State University, for providing some of the source materials cited in this article.

REFERENCES

1. See La. Civ. Code art 451. See the detailed discussion in the text accompanying notes 30-33, 36-41, *infra*, under "Determination of Tidal Boundaries."
2. Louisiana's coastline is 1,713 miles long, with 1,122 miles on the mainland and 591 miles around islands. Ireland, *Marginal Seas Around the States*, 2 La.L.Rev. 436, 444 (1940). More than 25 percent of the coastal wetlands in the United States are in Louisiana. Comment, *Conflicting Interests in Southern Louisiana's Wetlands: Private Developers Versus Conservationists, and the State and Federal Regulatory Roles*, 56 Tul.L.Rev. 1006, 1007 (1982). See the additional discussion in the text accompanying notes 15-17, *infra*, under "Title to Lands Within the Coastal Zone." For a summary of the impact of the serious erosion along the seashore in Louisiana, see "Legal Effect of Physical Changes

in the Shoreline" under "Determination of Tidal Boundaries," *infra*.

3. See the discussion in the text accompanying notes 40-43, *infra*, under "Determination of Tidal Boundaries."
4. See *United States* v. *Louisiana*, 452 U.S. 726 (1981), the latest in a series of cases on this issue. In 1937 Louisiana legislatively claimed a strip seaward 27 miles in the Gulf. In 1960 the U.S. Supreme Court ruled that the state is entitled to a belt only 3 miles wide. For a further discussion, see the text accompanying notes 23 and 25-29, *infra*, under "Title to Lands Within the Coastal Zone."
5. As of 1969 more than $1 billion was at stake in the legal battle between Louisiana and the Federal Government. See the additional discussion in the text accompanying note 29, *supra*, under "Title to Lands Within the Coastal Zone." State officials are keenly aware of this precious natural asset: "The petroleum and natural gas reserves of the Louisiana coastal zone provide a significant share of the nation's energy, with the Outer Continental Shelf beyond Louisiana contributing the largest oil and gas contribution of any such area in the United States." *Draft Environmental Impact Statement and Proposed Louisiana Coastal Resources Program* [hereinafter referred to as DEIS] 23 (1979). The Louisiana Coastal Resources Program gained Federal Government approval in 1980, thereby enabling the state to continue to receive federal coastal zone funding.
6. DEIS, *supra*, note 5, at 29-30, 108-109.
7. Under the Louisiana State and Local Coastal Resources Management Act of 1978 (Act 361), "activities within the jurisdiction of Louisiana Offshore Terminal Authority (LOTA), related to the construction of the Louisiana Offshore Oil Port [LOOP, or Superport] do not require a coastal use permit." DEIS, *supra*, note 5, at 4. See also *id.* at 103-108. For an excellent capsule summary of the act, on which Louisiana's Coastal Resource Program is based, see Forman, *The Louisiana Coastal Resources Management Act of 1978*, 28 La.Bar J. 91 (1980).
8. This statute (Act 361 of the 1978 session) now is codified. See La. Rev. Stat. § 49:213.3 (4), 213.4. The seaward boundary of the zone is "the seaward limit of the state . . . as determined by law."
9. La. Rev. Stat. § 49:213.4C, D.
10. Comment, *supra*, note 2, 56 Tul. L. Rev. at 1033 n. 180. The coastal zone embraces almost 7 million acres. *Id.* at 1033, n. 181.
11. This classification is used for convenience and consistency with other articles in this series.
12. Some of these lands are open to the public, *e.g.*, the 27,000-acre Paul J. Rainey Private Wildlife Refuge. Other large refuges that the public may visit include the Mersh Island State Wildlife Refuge (78,000 acres) and the Rockefeller State Wildlife Refuge (64,500 acres). DEIS, *supra*, note 5, at app. d-6.
13. "The state was first settled by the France in 1699 . . . . [T]he colony was transferred by France to Spain by a preliminary treaty of November 3, 1762; and by the Treaty of Paris, Feb. 10, 1763, France ceded to Great Britain all land east of the middle of the Mississippi River, of the Iberville River, of Lake Maurepas and of Lake Pontchartrain to the sea. The Province of Louisiana, secretly ceded back by Spain to France in 1800, was sold by Napoleon to the United States for fifteen million dollars in 1803." Ireland, *supra*, note 2, 2 La. L. Rev. at 444. (Footnotes omitted.)
14. See "Upland Tideland Boundary" under "Determination of Tidal Boundaries," *infra*.
15. The term "wetlands" has varying definitions. The U.S. Army Corps of Engineers defines wetlands as including "swamps, marshes, bogs and similar areas." 33 C.F.R. § 323.2(c).
16. "Louisiana's Coastal Zone Crisis," *ASBPA Newsletter*, December 1981, p. 1. The cited article, an excellent summary of the extensive loss of wetlands in the state, was excerpted from *Aquanotes*, Louisiana State University, Vol. 10, Issue 3, August 1981. It indicates that Louisiana has 40 percent of all the wetlands, but another source puts the state's share at about 25 percent. Comment, *supra*, note 2, 56 Tul. L.Rev. at 1007.
17. *Id.* at 1007.
18. Under a recent compromise, the wetlands in the Atchafalaya Basin, "the largest and most imortant overflow swamp system in North America," are to "be preserved in their present state." *Id.* at 1007 n. 6, 1010. The plan calls for 40 percent of the basin to be opened to the public, and purchase by and donation to the state of at least 93,000 acres. *Id.* at 1009-1010. See also "Louisiana's coastal Crisis," *supra*, note 16, at 1-2.
19. *Ibid.*
20. For a brief discussion of the equal-footing doctrine, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
21. The Louisiana Act of Admission, 2 Stat. 701, contains such a proviso. La. Civ. Code art. 450 provides in part: "Public things that belong to the state are such as . . . the territorial sea and the seashore." This statute is consistent with Louisiana's civil-law heritage. Under the civil law, the seashore is "common to all," and not subject to private ownership. For a brief discussion of the civil law, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 14-15.
22. La. Rev. Stat. §§ 41:1-19 *et seq.*, 1171-1173, 1211-1219, 1261 *et seq.*
23. Ireland, *supra*, note 2, 2 La. L.Rev. at 280-282; Ireland, *Marginal Seas Around the States*, 1 La. L.Rev. 281 n. 124 (1940).
24. For a brief discussion of the *Submerged Lands Cases*, see *Shore and Beach*, Vol. 49, No. 1, January 1981, p. 17.
25. *United States* v. *Louisiana*, 339 U.S. 699 (1950).
26. 67 Stat. 29, 43 U.S.C. § 1301 *et seq.* See *Shore and Beach*, Vol. 49, No. 1, January 1981, p. 17.
27. *United States* v. *Louisiana*, 363 U.S. 1, 363 U.S. 121, 364 U.S. 502 (1960).
28. Hribernick, "The Legal Implications of Coastal Erosion in Louisiana," *La. Coastal Law*, No. 43, December 1981, p. 3. (Footnote omitted; emphasis in original.) This excellent article enumerates what its author characterizes as "a cumbersome series of Supreme Court cases" involving Louisiana and the United States. The author of that article is of the opinion that the court, in its June 1981 final decree in *United States* v. *Louisiana*, 452 U.S. 726 (1981), "implies that if the [Louisiana] coastline recedes due to erosive forces, the United States would have the right to seek a more favorable boundary with the state in court." *Id.* (Footnote omitted.)
29. Taylor, *The Settlement of Disputes Between Federal and State Governments Concerning Offshore Petroleum Resources: Accommodation or Adjudication?* 11 Harv. Int'l L. J. 358, 384 n. 150 (1970). Clearly, the technologocial breakthroughs since that article have further escalated the financial impact of the Supreme Court's decision against Louisiana. For example, rigs are now located in water more than 1,000 feet deep.
30. For a brief description of the civil-law rule on ownership and the private/public tidal boundary, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 14-15, 17-18.
31. 1978 La. Acts, No. 728, § 1, effective Jan. 1, 1979.
32. The 1978 revision "reproduces the substance of Article 451 of the Louisiana Civil Code of 1870. It does not change the law." La. Civ. Code Ann. art. 451, discussion, p. 47 (West 1980). Article 451 of the Louisiana Civil Code of 1870, "together with articles 450 and 452, making [the seashore] common property, or *res communes*, has remained unchanged in Louisiana since the Code of 1808. It is interesting to note that all three are taken almost *verbatim* from the Institutes of Justinian, in which the same test of seashore, 'the land covered by the highest tide during the winter season,' is laid down." Comment, *Seashore in Louisiana*, 8 Tul. L. Rev. 272, 273 (1934). (Footnotes omitted.)
33. Maloney & Ausness, *The Use and Legal Significance of the Mean High Water Line in Coastal Boundary Mapping*, 53 N.C.L. Rev. 185, 200-202 (1974) [hereinafter cited as Maloney & Ausness]; *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18.
34. *Shore and Beach*, Vol. 48, No. 4, October 1980, p. 18.
35. *Shore and Beach*, Vol. 49, No. 4, October 1981, pp. 25-26.
36. Comment, *supra*, note 32, 8 Tul. L. Rev. at 272.
37. *Id.* at 274. In *Roy* v. *Board of Commissioners*, 238 La. 926, 932, 117 So.2d 60, 62 (1960), the court rejected the defendant levee board's contention that the seashore should be defined as the strip of land "normally covered by the highest tides of the year," because that would in effect rewrite the Civil Code provision, "a prerogative that belongs . . . to the legislature."
38. Comment, *supra*, note 32, 8 Tul. L. Rev. at 274-275. See *Buras* v. *Salinovich*, 154 La. 495, 97 So. 748 (1923); *Morgan* v. *Nagodish*, 40 La. Ann. 246, 3 So. 636 (1888).
39. La. Civ. Code Ann. art. 451, discussion, p. 47 (West 1980).
40. *Bruning* v. *City of New Orleans*, 165 La. 511, 115 So. 733 (1927); *Zeller* v. *Southern Yacht club*, 34 La. Ann. 837 (1882). But other cases seem inconsistent with this holding. See *Roussel* v. *Grant*, 14 Orl. App. 57 (La. 1916); *New Orleans Land Co.* v. *Board of Levee Com'rs*, 171 La. 718, 132 So. 121 (1931); *Milne* v. *Girodeau*, 12 La. 324 (1838). See also note 42, *infra*.

41. Comment, *supra*, note 32, at 275. (Footnote omitted.) "The Louisiana Supreme Court has probably been influenced in its decisions by the historical origin of this body of water which, geologists declare, was anciently a part of the Gulf of Mexico." *Ibid.* (Footnote omitted.)
42. *New Orleans Land Co.* v. *Board of Levee Com'rs*, *supra*, 171 La. 718, 132 So. 121. See note 40, *supra*, and accompanying text. This apparent exception arguably does not apply to the open coast because this case involved land bordering on Lake Pontchartrain and not along the Gulf. The court seemed to hold that Lake Pontchartrain should be treated as a lake instead of as an arm of the sea, noting that "the normal tidal variation does not exceed 4 or 5 inches." 171 La. at 723, 132 So. at 123. The court stated that the waterbottoms of both salt-water tidal lakes and fresh-water inland lakes "are owned by the state to the high-water mark." *Ibid.*
43. Maloney & Ausness, *supra*, note 33, 53 N.C.L.Rev. at 202 n. 132; Ausness, *Land Use Controls in Coastal Areas*, 9 Cal. W.L. Rev. 391, 397 n. 23 (1973).
44. Hribernick, *supra*, note 28, at 3. See also Note, *Waters and Watercourses—Riparian Rights—Accessions*, 29 Tul. L. Rev. 362, 363-364.

    The law of dereliction—or the gradual recession of water formerly covering land, leaving dry land—does not apply to the open coast or to waterbodies held to be arms of the sea such as Lake Pontchartrain. See Comment, *supra*, note 32, 8 Tul. L. Rev. at 275-276.
45. *New Orleans Land Co.* v. *Board of Levee Com'rs*, *supra*, 171 La. 718, 132 So. 121.
46. Hribernick, *supra*, note 28, at 3.
47. *Louisiana Wetlands Prospectus* (Final Report of former La. Advisory Com'n on Coastal and Marine Resources) 143 (1973).
48. DEIS, *supra*, note 5, at app. f-1.
49. *Ibid.*
50. 1978 La. Acts, No. 361, § 213.8.
51. *Final Environmental Impact Statement and Louisiana Coastal Resources Program* [hereinafter cited as FEIS] 53-54 (Guideline 1.7(s)) (1980). A specific guideline calls for erosion avoidance in the design, construction and maintenance of mineral exploration and production facilities. *Id.* at 63 (Guideline 10.4).
52. See the discussion of "Uplands" under "Title to Lands Within the Coastal Zone" and notes 2, 15-19, *supra*.
53. "Louisiana's Coastal Zone Crisis," *supra*, note 16, at 1.
54. *Ibid.*
55. See the discussion of the court's 1979 decision under "Title to Lands Within the Coastal Zone," *supra*.
56. Comment, *supra*, note 2, 56 Tul.L.Rev. at 1008. (Footnote omitted.)
57. *Ibid.* (Footnote omitted.) See also 1981 La. Acts, No. 41 (1st Ex. Sess.).
58. For some interesting background on the Louisiana law before 1975, see Yiannopoulous, *Work of Appellate Courts—1970-1971: Property: Public Things, Navigable Waterbottoms*, 32 La.L.Rev. 172 (1972); Yiannopoulous, *Validity of Patents Conveying Navigable Waterbottoms—Act 62 of 1912, Price, Carter, and All That*, 32 La.L.Rev. 1 (1971); Yiannopoulous, *Common, Public, and Private Things in Louisiana: Civilian Tradition and Modern Practice*, 21 La.L.Rev. 697 (1961); Comment, *supra*, note 32, 8 Tul.L.Rev. 272.
59. The public trust doctrine, which has its origin in the early Roman civil law, provides in effect that the public has the right to use lands beneath tidal waters for certain purposes, such as navigation and fisheries, and also that any private title to these lands is subordinate to the public's right. For a brief discussion of the public trust doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
60. Comment, *The Public Trust Doctrine as a Basis for Environmental Litigation in Louisiana*, 27 Loy.L.Rev. 469, 477 (1981). (Footnote omitted.) (The case is reported at 317 So.2d 576, *modified on rehearing*, 317 So.2d 580 (1975).)
61. Private claimants asserted title "through Act 62 of 1912, which allows the state but six years to commence action to annul a patent issued by the state. The state agencies argued . . . that the private claimants could not assert ownership over the bed of a navigable water body." *Ibid.* (Footnotes omitted.)
62. *Ibid.* The public trust doctrine had first been advocated 14 years earlier in *State* v. *Cenac*, 341 La. 1055, 132 So.2d 928 (1961). *Id.* at 476-477. Previously, in *California* v. *Price*, 225 La. 706, 74 So.2d 1 (1954), *aff'd on rehearing*, 234 La. 338, 99 So.2d 743 (1957), the court "had found that the curative provisions of property law operated against the state to confirm the private grantees in their claims to title" to "lands which included the bed of Grand Bay." *Id.* at 476. (Footnotes omitted.)
63. *Id.* at 477, quoting the *Gulf Oil* decision, 317 So.2d at 589. (Footnote omitted.)
64. *Id.* at 478, quoting *Gulf Oil*, *supra*, 317 So.2d at 589. (Footnote omitted.)
65. *Ibid.*
66. See, *e.g.*, La.Rev. Stat. § 41:1701 (Supp. 1982), providing in part: "The beds and bottoms of all navigable waters and the banks or shores of bays, arms of the sea [and] the Gulf of Mexico, . . . belong to the state . . . and the policy of this state . . . is . . . that these lands and water bottoms . . . shall be protected, administered and conserved to best insure full public navigation, fishery, recreation, and other interests . . . ." See also La.Rev. Stat. §§ 9:2341-2347 (Supp. 1982), dealing with "[e]xpress trusts . . . created . . . to provide funds for the furtherance and accomplishment of any authorized public function or purpose of the state . . . ."
67. Comment, *supra*, note 60, 27 Loy.L.Rev. at 479. (Footnotes omitted.)

    "Louisiana, by generally following the Roman tradition of property law, has a built-in system of defining and maintaining what the English system would call 'public trust' lands; that is, anything owned by the state in its sovereign capacity, and anything not susceptible of ownership by any private person, is a proper subject for the public trust. [Louisiana] Civil Code Article 449 defines 'common things' as the air and the high seas . . . . In addition, Article 450 declares that 'public things' are those that . . . belong to the state . . . such as . . . the waters and bottoms of . . . the territorial sea, and the seashore . . . . The nature of this [public] property is such that, while nominally owned by the state, it is held merely for the use of the citizens of the state . . . . It is dedicated to the public use, and *held as a public trust*, for public uses . . . ." Comment *supra*, note 60, 27 Loy.L.Rev. at 474-475. (Footnotes omitted; emphasis added.)

    For further discussions of the public trust doctrine in Louisiana, with emphasis on the 1975 *Gulf Oil* decision, see *Legislative Symposium: Property: things*, 38 La. L.Rev. 73, 81 n. 102 (cont'd) (1977); Note 36 La.L.Rev. 694 (1976); Yiannopoulos, *Work of Appellate Courts—1974-75: Property: Common, Public, and Private Things*, 36 La.L.Rev. 346 (1976).
68. See *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23.
69. See *Shore and Beach*, Vol. 50, No. 2, April 1982, pp. 11-12.
70. See *Shore and Beach*, Vol. 49, No. 3, July 1982, pp. 19-20.
71. See *Shore and Beach*, Vol. 49, No. 4, October 1982, pp. 27-28.
72. DEIS, *supra*, note 5, at app. d-1. Among other factors: "The Louisiana coastal shore is not utilized as much for more intensive outdoor recreational pursuits (i.e., swimming, camping . . .) as for hunting . . ."; "[t]opography has dictated a reliance on water access, hence a great number of boat launches . . ."; and ". . . a lack of bathing beaches and beach facilities . . . ." *Id.* at app. d-1-2.
73. See "Title to Lands Within the Coastal Zone" and "Determination of Tidal Boundaries," *supra*.
74. A 1973 state report concludes: "Although the coastal zone of Louisiana has certain land and water areas intrinsically suitable for recreation, many of these areas are unusable for recreation because of inadequate public access. As a result, public demand for wholesome outdoor recreational outlets far exceeds the accessible supply in quality and quantity." *Louisiana Wetlands Prospectus*, *supra*, note 47, at 269. Numerous recommendations were made by the former Louisiana Advisory Commission on Coastal Marine Resources to increase public access. *Id.* at 269-272. The report states: "Grand Isle, the most stable of the Louisiana barrier islands, is accessible by highway and is important as a recreation area . . . ." *Id.* at 302.
75. 1978 La. Acts, No. 361, § 213.2(6); see also *id.*, § 213.8(C) (10) (legislative goals for development of coastal use guidelines). The act, now codified at La.Rev. Stat. §§ 49:213.1-213.21, was amended in 1979 and 1980.
76. FEIS, *supra*, note 51, at 43-50.
77. Guideline 1.6(q) calls for consideration of the "extent of impacts on navigation, fishing, public access, and recreational activities" in evaluating whether a proposed coastal zone use complies with the guidelines. *Id.* at 52-53.

78. Guideline 5.3 provides that "[s]horeline modification structures . . . should foster fishing, other recreational activities, and public access." *Id.* at 58.

79. See "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.

80. La.Rev.Stat. § 41:1705 (Supp. 1982). This provision is part of a state waterbottom management statute enacted in 1978. *Id.*, §§ 41:1701-1714 (Supp. 1982). The law has a number of exceptions, including [p]iers, structures, or other improvements within the jurisdiction of any deep-water port commission," "[t]emporary extensions to existing encroachments," and "[d]uck blinds, rafts, floats or buoys, unless unduly interfering with public navigation or fishery." *Id.* § 41:1705.

81. *Id.*, § 41:1702(B) (Supp. 1982).

82. *Id.*, § 41:1702(F) (Supp. 1982).

83. FEIS, *supra*, note 51, at app. c1-2-6.

84. The authority of the department's Office of Mineral Resources "is derived from the authority of the State Mineral Board in Title 30 . . . . [That board] was granted exclusive authority to grant permits to conduct geophysical and geological surveys on state-owned lands and water bottoms . . . ." *Coastal Zone Planning: Legal Element* (Final Report to La. Dep't of Transp. and Dev.) 25 (1978). The 10 levee districts with jurisdiction in the coastal zone may lease land for mineral development subject to approval by the State Mineral Board under La.Rev.Stat. § 30-153 *et seq.*

85. *Coastal Zone Planning: Legal Element*, *supra*, note 84, at 21. See also *id.* at 19, pointing out that the authority of this office is set forth in both La.Rev. Stat. § 36:609 and § 56:421 *et seq.* Louisiana's fisheries account for 28 percent of the total U.S. fish harvest. DEIS, *supra*, note 5, at 23-26.

86. The act is codified at La.Rev.Stat. § 49:213.1-213.21 (Supp. 1982). For a brief discussion of certain aspects of this act and guidelines approved in 1980, see "Private Littoral Rights," *supra*. Under § 213.11(A), "[n]o person shall commence a use of state or local concern without first applying for and receiving a coastal use permit."

87. FEIS, *supra*, note 51, at app. c1.

88. From January 1, 1981, through May 15, 1982, there had been 2,615 applications for coastal use permits; no permits were required in 1,117 cases, permits were issued (either with or without conditions) to 918 applicants, and only two permits were denied, according to a Coastal Use Permit Status Report by the DNR's coastal management section dated May 19, 1982.

89. 1977 La.Acts, No. 705, *amending* La.Rev.Stat. § 49:213.1-213.6, *adding* La.Rev.Stat. §§ 49:213.7-213.12 (Supp. 1982). The act created a 21-member Louisiana Coastal Commission, which established "broad standards and criteria to serve as minimum requirements for state agencies and local governments when they set up management programs over their respective areas of jurisdiction." *Legislative Symposium: Environmental Law: Coastal Zone Management*, 38 La.L.Rev. 141, 142 (1977). The Coastal Commission played a key role in the development of the coastal use guidelines discussed in the text accompanying note 77 and 78, *supra*. FEIS, *supra*, note 51 at 45-46.

90. Hershman & Mistric, *Coastal Zone Management and State-Local Relations Under the Louisiana Constitution of 1974*, 22 Loy.L.Rev. 273 (1976). These legal authors trace the subsequent developments, particularly in light of the federal Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 *et seq.*, and "the new Louisiana Constitution of 1974 and its provisions for increased autonomy of local government from the state legislature, . . ." *Id.* at 274-275. Another legal commentator states that the coastal management program created by Act 705 of 1977 "demonstrates a strong belief that most land use decisions should be made on the local level . . . [with] the bulk of authority in the coastal zone . . . left with local governments." *Legislative Symposium*, *supra*, note 89, 38 La.L.Rev. at 143.

91. *Ibid.* See also 49 La.Rev.Stat. §§ 213.5A(2), 213.9; FEIS, *supra*, note 51, at 44, app. c2; DEIS, *supra*, note 5, at 1, 34; Hershman & Mistric, *supra*, note 90, 22 Loy.L.Rev. at 274-276, 280-299; Marcel & Bockrath, *Regional Governments and Coastal Zone Management in Louisiana*, 40 La.L.Rev. 887, 897-906 (1980).

92. For example, after a 1977 executive branch reorganization, "authority to control dredge and fill activities resides in five departments of state government." *Coastal Zone Planning: Legal Element*, *supra*, note 84, at 18.

The Law of the Coast in a Clamshell*

Part X: The North Carolina Approach

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A pendulum swing toward preservation of natural resources — and away from unlimited development — is evidenced in North Carolina's contemporary law of the coast.

During the 1960s increasing tourism, second-home construction and new industry began to have a pronounced effect on some of the state's barrier islands and salt marshes.[1] Critics warned about the loss of and damage to estuarine areas.[2]

In 1972 the voters responded by approving an "Environmental Bill of Rights" amendment to the state's Constitution. The amendment declares the state's policy to "preserve . . . its . . . wetlands, estuaries, beaches, . . . and places of beauty."[3]

Two years later, the Tarheel State enacted the Coastal Area Management Act,[4] culminating "10 years of effort to develop a management system that would protect . . . coastal resources and yet permit their wise and orderly development."[5]

In 1978 the North Carolina Coastal Management Program became the South's first federally approved coastal plan, and in 1981 an extensive Beach Access Program was initiated.[6]

TITLE TO LANDS WITHIN THE COASTAL ZONE

The North Carolina's "coastal area,"[7] as defined in the Coastal Area Management Act of 1974[8] and designated by the governor, consists of 20 counties.[9] The area generally coincides with the state's Tidewater region.[10]

The coastal zone extends seaward to the limits of state jurisdiction,[11] encompassing the Outer Banks or barrier islands[12] (Figs. 1 and 2). The area also includes the largest estuarine complex of any East Coast state,[13] consisting of seven coastal sounds and the adjoining lands.

For convenience, the state's coastal lands may be divided into uplands, tidelands and submerged lands.[14]

A. Uplands

Along the Atlantic Ocean, 148 miles of North Carolina's 308 total miles of shoreline are in public ownership.[15] In other portions of the coastal zone, private parties own the bulk of the uplands. Many of these titles date back to the era from 1663 to 1729, when the area within today's state boundaries was a chartered proprietorship.[16]

In 1777 the newly independent state provided for the disposition of lands not previously conveyed by the English crown or the colonial proprietors. Under this state procedure — known as the entry-and-grant statute — private parties could gain title to vacant public land by complying with statutory requirements.[17]

Many coastal wetlands, such as marshes, became privately owned under this law, which did not distinguish between estuarine and other types of land. In 1823 the North Carolina Supreme Court held that this act did not allow private parties to gain title to lands underlying navigable waters.[18]

In 1959 the entry-and-grant system was abolished and replaced with a procedure for direct sale and lease of state lands.[19]

B. Tidelands

Upon the signing of the Declaration of Independence, on July 4, 1776, North Carolina, as one of the original states, became the owner, in trust, of tidelands within its borders.[20] There had been no blanket grant of tide-flowed lands into private ownership during the colonial period, contrary to the practice in Massachusetts.[21] However, one legal writer has noted that some such lands "have been sold or granted by the state and can be validly claimed by private parties."[22]

C. Submerged Lands

The state's ownership of submerged lands seaward to 3 geographical miles off the coast was confirmed in 1953 by the Submerged Lands Act.[23] The claim of North Carolina and other Atlantic Coast states to "dominion and control" over the area beyond the 3-mile limit was turned down by the United States Supreme Court in 1975.[24]

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*This is the 10th in a series of articles presenting a capsule survey of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of North Carolina concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California. © 1983 by Peter H.F. Graber. The author also asserts copyright protection for the first nine articles in the series.

Fig. 1. Aerial view westward of Fort Macon State Park, North Carolina, located on barrier beach at Beaufort Inlet (April 1969). Groin system in foreground stabilizes the inlet shoulder (Corps of Engineers photograph).

Fig. 2. Aerial view northward of Wrightsville Beach, North Carolina, in early 1970's. Grassed area in foreground is an artificial dune (Corps of Engineers photograph).

DETERMINATION OF TIDAL BOUNDARIES

A. Upland-Tideland Boundary

In common with most coastal states, North Carolina has adopted a high-water legal boundary between uplands and tidelands. In 1817 the state's Supreme Court decided that under the entry-and-grant statute, private ownership of property adjoining navigable water extended only to the high-tide line.[25]

That early decision was reaffirmed in 1970 in *Carolina Beach Fishing Pier v. Town of Carolina Beach*.[26] The court stated that the "high-water mark" boundary "is generally computed as a mean or average high-tide, and not as the extreme height of the water,"[27] and cited as support for its conclusion the U.S. Supreme Court's 1935 opinion in the *Borax* case.[28] It therefore seems that the *Carolina Beach* opinion accepts the Federal Government's use of a tidal datum based on a mean of *all* the high tides over an 18.6-year period in determining the high-water line.[29]

The state's legislation agrees with the case law. A 1979 statute provides that, in general, "[t]he seaward boundary of all property . . . not owned by the State,

which adjoins the ocean, is the mean high water mark."[30]

B. Legal Effect of Physical Changes in the Location of the Shoreline

In general, North Carolina follows the usual rule that both accretion and erosion cause changes in the upland/tideland boundary.[31] In the *Carolina Beach* case, the court, when referring to the landward shift of the legal boundary resulting from erosion, displayed a literary flourish. Herman Melville's *Moby Dick* was quoted in the holding that a private claimant's "title was divested by 'the sledgehammering seas . . . the inscrutable tides of God.'"[32]

A 1959 statute, allowing an upland owner title to natural and certain artificial deposits of land adjoining his parcel, provides in part:

> ". . . If any land is, by any process of nature or as the result of the erection of any pier, jetty or breakwater, raised above the high watermark of any navigable water, title thereto shall vest in the owner of that land which, immediately prior to the raising of the land in question, directly adjoined the navigable water. . . ."[33]

However, this statute was narrowly construed against a private claimant in the *Carolina Beach* decision.[34] And the court in another case held that a private upland owner cannot gain title to previously water-covered land that is reclaimed by artificial fill.[35]

Erosion is recognized as a serious problem along the North Carolina coast. The state's Coastal Management Program notes: "A recent inventory conducted by the Soil Conservation Service indicates that . . . some shorelines [exhibit] an erosion rate of 20 feet per year."[36] The program classifies as "ocean hazards areas" those "areas along the Atlantic Ocean shoreline where, because of their special vulnerability to erosion or other adverse effects of sand, wind, and water, uncontrolled or incompatible development could unreasonably endanger life or property."[37]

NORTH CAROLINA'S PUBLIC TRUST DOCTRINE

North Carolina's Supreme Court was one of the earliest tribunals to articulate what is now termed the public trust doctrine.[38] An 1822 decision[39] was a precursor of later, more detailed judicial recognition of the concept that the public is entitled to use tidal waters for navigation and related purposes. And in 1828 the state's high court extended the doctrine "to include lands under non-tidal waters as well as those included under the ebb-and-flow rule."[40]

The United States Supreme Court's landmark 1892 *Illinois Central*[41] decision on the public trust was quoted with approval in 1903 by the North Carolina court in *Shepard's Point Land Co.* v. *Atlantic Hotel*.[42] The state court cited the *Illinois Central* language "that the state can no more abdicate its trust . . . than it can abandon its police powers and the preservation of the peace."[43]

Despite what appears to be a clear position on the public trust doctrine, a legal scholar recently admitted that "the extent of the public trust ownership of North Carolina is confused and uncertain."[44]

One source of this uncertainty is the question of whether the state's public trust doctrine applies to marshlands.[45] In three apparently contradictory cases, the *Parmele* decisions handed down between 1938 and 1952,[46] the state's high court "touched on the marshlands problem but avoided the issue of whether tidal marsh could be protected in the same way as foreshore [tidelands] under the common-law ebb-and-flow test."[47]

Applying North Carolina law, but also relying on cases from other states, a federal court upheld the rights of hunters to use the shallow but navigable waters of a coastal sound for hunting and taking wild fowl and game. Defendant hunters had placed their blinds in waters over shoals, and plaintiffs, claiming to be owners of the shoal lands, sued to enjoin the alleged trespass.

The court, after finding that plaintiffs had not proved title to the shoal lands, held that even if that determination were erroneous, "the defendants had [the] legal rights to use the waters for hunting wild game as an incident to the right of navigation of such waters, or as a right inherent in the public."[48]

Following the enactment of North Carolina's Coastal Area Management Act of 1974,[49] "areas of environmental concern" (AECs) along the coast were designated by state officials. The act specifically recognizes public trust rights, authorizing designation for intensive regulation as AECs those "waterways and lands under or flowed by tidal waters or navigable waters, to which the public may have rights of access or public trust rights, . . ."[50]

The North Carolina Coastal Management Program defines "AEC public trust areas" as "all waters in the coastal zone in which the public has acquired rights by prescription, custom, usage, dedication, or any other means," including both estuarine waters and certain other inland bodies of water.[51]

PUBLIC ACCESS RIGHTS

In 1981 North Carolina's legislators created the Coastal Beach Access Program.[52] Its purpose: to acquire, improve and maintain property along the Atlantic Ocean for a "system of public access to ocean beaches."[53] Legislative findings included:

> ". . . [T]here are many privately owned lots or tracts of land in close proximity to the Atlantic Ocean . . . that have been and will be adversely affected by the coastal hazards such as erosion, flooding and storm damage. The sand dunes on many of these lots provide valuable protective functions . . . .
>
> "The public has traditionally fully enjoyed the State's ocean beaches and public access to and use of the beaches . . . . Public access . . . is, however, becoming severely limited in some areas . . . . Public purposes would be served by providing increased access to ocean beaches, public parking facilities, or other related public uses. . . ."[54]

The Coastal Resources Council and the Department of Natural Resources and Community Development are charged with administering this new access pro-

gram.[55] A $1 million bond issue is funding the program.

Several years before the enactment of the Coastal Beach Access Program, the access issue was addressed in the North Carolina Coastal Management Program. That program's goal was "to insure adequate access to the public beaches in coastal waters in a manner which is not detrimental to the delicate beach environment and which satisfactorily allocates such access among competing types of uses."[56]

While North Carolina's legislative and administrative branches of government have recently expressed concern about public beach access, the state's appellate courts apparently have not been confronted with access questions. Consequently, such judicially declared legal concepts as Oregon's customary rights doctrine[57] and California's implied dedication theory[58] "have not yet been applied to beach lands in North Carolina."[59]

One reason for this apparent lack of judicial interest is, of course, the fact that so much of the state's ocean-front land, such as the Cape Hatteras and Cape Lookout National Seashores, is in public ownership. However, the courts may become more involved in the future if beach access issues arise along the privately owned portion of the coast.[60]

PRIVATE LITTORAL RIGHTS

In addition to the right to natural accretion[61] private littoral owners in North Carolina enjoy a qualified right of access to the adjoining navigable waters.[62] They thus may construct piers, wharves and landings, subject to legislative controls.[63]

By statute, upland owners may receive from the state easements in adjoining lands underlying navigable waters, extending to deep water.[64]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The state may lease "any and all mineral deposits . . . which may be found in the bottoms of any sounds, rivers, creeks, or other waters . . ."[65] Similarly, leases for the cultivation of oysters and clams "of the public bottoms underlying coastal fishing waters" may be issued.[66] In addition, leases of vacant and unappropriated lands and marshlands are authorized.[67]

B. Regulatory Functions

In 1969 legislators paved the way for closer supervision of North Carolina's coastal zone by directing the formulation of a proposed comprehensive coastal management plan.[68] During that same year, "the General Assembly also . . . enacted stop-gap legislation regulating the dredging and filling of estuarine land and the alteration of sand dunes."[69]

The Coastal Wetlands Act was passed in 1971,[70] and a coastal management bill was first introduced in 1973.[71] Finally, after a long legislative battle, the Coastal Area Management Act (CAMA) was enacted in 1974.[72]

CAMA combines a planning process with a regulatory system. "Each coastal county is required to adopt a land use plan subject to state approval and under guidelines formulated by the state."[73] A newly created state agency, the Coastal Resources Commission (CRC), is charged with designating "certain geographical areas of lands and waters . . . as 'areas of environmental concern' [AECs] within which development is to be closely regulated."[74] The state Supreme Court upheld CAMA's constitutionality in 1978.[75]

CAMA and other state laws serve as the basis for the North Carolina Coastal Management Program, which received Federal Government approval in September 1978. The program follows a two-tier management approach, with the state and local government having different roles depending on the nature of the area.[76]

ACKNOWLEDGMENTS

The author is grateful to Todd Llewellyn of the Department of Natural Resources and Community Development, State of North Carolina, for providing some of the source material cited in this article.

REFERENCES

1. *North Carolina Coastal Management Program and Final Environmental Impact Statement* [hereinafter referred to as NCCMP] 64, 108-111 (1978).
2. See, *e.g.*, various reports and statements cited in Rice, *Estuarine Land of North Carolina: Legal Aspects of Ownership, Use and Control*, 46 N.C.L. Rev. 779 (1968); Morgan, *On the Legal Aspects of North Carolina Coastal Problems*, 49 N.C.L. Rev. 857 (1971); Comment, *Defining Navigable Waters and the Application of the Public-Trust Doctrine in North Carolina: A History and Analysis*, 49 N.C.L. Rev. 888 (1971); Comment, *Estuarine Pollution: The Deterioration of the Oyster Industry in North Carolina*, 49 N.C.L. Rev. 921 (1971); Comment, *Environmental Law — Preservation of the Estuarine Zone*, 49 N.C.L. 964 (1971); Comment, *Environmental Law — The Public Trust Doctrine: A Useful Tool in the Preservation of Sand Dunes*, 49 N.C.L. Rev. 973 (1971); Schoenbaum, *Public Rights and Coastal Zone Management*, 51 N.C.L. Rev. 1 (1972).
3. N.C. Const., art. XIV, § 5 (Supp. 1981).
4. N.C. Gen. Stat. § 113A-100 *et seq.* For a brief discussion of this act, see "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
5. NCCMP, *supra*, note 1, at 64.
6. N.C.Gen.Stat. § 113A-134.1 *et seq.* (Supp. 1981). For a brief discussion of this program, see "Public Access Rights," *infra*.
7. The North Carolina Coastal Area Management Act (CAMA), N.C. Gen. Stat. § 113A-100 *et seq.*, uses the words "coastal area" instead of "coastal zone," the term employed in the federal Coastal Zone Management Act of 1972, 16 U.S.C. §1451 *et seq.*, and in many of the other states' coastal acts. One writer explains this statutory use of "coastal area" as follows: "The common view that 'zoning' is a dirty word apparently prompted an anonymous staff member of the [state's] Department of Administration to suggest this verbal softening." Heath, *A Legislative History of the Coastal Area Management Act*, 53 N.C.L. Rev. 345, 350 (1974).
8. N.C. Gen. Stat. § 113A-103(2) (Supp. 1981).
9. Pursuant to CAMA, the governor, by executive order on April 29, 1974, designated the 20 counties bounded either by the Atlantic Ocean or a coastal sound that constitute the "coastal area." Schoenbaum, *The Management of Land and Water Use in the Coastal Zone: A New Law Is Enacted in North Carolina*, 53 N.C.L. Rev. 275, 283-284 (1974).
10. NCCMP, *supra*, note 1, at 169.
11. The seaward boundary is defined in CAMA as being "in no event less than three geographical miles offshore." N.C. Gen. Stat. § 113A-103(2) (Supp. 1981). Another statute provides in part: "[T]he eastern boundary of the State of North Carolina is hereby declared to be fixed as it has always been at one marine league

eastward from the seashore of the Atlantic Ocean. . . . measured from the extreme low-water mark. . ." N.C. Gen. Stat. § 141-6.

12. However, federally owned or leased lands such as Cape Hatteras and Cape Lookout National Seashores are excluded from the state's coastal management program. NCCMP, *supra*, note 1, at 172, 245-246.
13. "The vast estuarine areas of North Carolina — 'those coastal complexes where fresh water from the land meets the salt water of the sea with a daily tidal flux' — are exceeded in total area only by those of Alaska and Louisiana. . . . In North Carolina, [estuarine areas encompass] extensive coastal sounds, salt marshes, and broad river mouths exceeding 2,200,000 acres." Rice, *supra*, note 2, 46 N.C.L. Rev. at 779. (Footnotes omitted.) See also Comment, *supra*, note 2, 49 N.C.L. Rev. at 889-900.
14. For consistency with other articles in this series, tidelands are defined as lands lying between the lines of mean high and mean low water and submerged lands as lands lying seaward of the line of mean low water. North Carolina statutory law, however, defines the term "submerged lands," as used in the chapter of the General Statutes relating to state lands, as meaning state lands beneath either "[a]ny navigable waters" (*i.e.*, "all waters which are navigable in fact") or "[t]he Atlantic Ocean to a distance of three geographical miles seaward from the coastline. . ." N.C. Gen. Stat. § 146-64(6).
15. NCCMP, *supra*, note 1, at 120.
16. Like the other original states' lands and waters, the area that is now within North Carolina was claimed by the English crown by right of discovery. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842).

    "In 1663 Charles II granted to the Lords Proprietors the lands which comprise North and South Carolina, 'together with all and singular ports, harbors, bays, rivers, isles, and islets . . . together with the royalty of the sea upon the coast. . . .'" Rice, *supra*, note 2, 46 N.C.L. Rev. at 784. (Footnote omitted.)

    "Most of the land titles in North Carolina are ultimately derived from the 1663 grants to the Lords Proprietors. There were, of course, earlier grants. Sir Walter Raleigh, in 1584, and Sir Robert Heath, in 1629, received grants which included present-day North Carolina from the Crown; both, however, forfeited their grants and neither passed valid title to any lands in North Carolina. . . . Some titles in the Albemarle Sound region [in northeastern North Carolina] may be traced back to grants from the London Company which colonized Virginia in the early 1600's." *Id.* at 784 n.30. See also R. Powell, 1 *The Law of Real Property*, ¶ 60 at 186 (Rev. ed. 1981).
17. Rice, *supra*, note 2, 46 N.C.L. Rev. at 786; Schoenbaum, *supra*, note 2, 51 N.C.L. Rev. at 8.
18. *Tatum* v. *Sawyer*, 9 N.C. 226, 229 (1822).
19. Rice, *supra*, note 2, 46 N.C.L. Rev. at 792-794; Schoenbaum, *supra*, note 2, 51 N.C.L. Rev. at 10.
20. *Martin* v. *Waddell*, *supra*, 41 U.S. (16 Pet.) 367, 408. Some North Carolina cases, laws and legal writers use the term "foreshore" instead of "tidelands." See, *e.g.*, *Carolina Beach Fishing Pier* v. *Town of Carolina Beach*, 277 N.C. 297, 301, 177 S.E. 2d 513, 516 (1970).
21. For a brief discussion of the grants in Massachusetts pursuant to the colonial ordinance of 1647, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-14.
22. Schoenbaum, *supra*, note 2, 51 N.C.L. Rev. at 10. A 1965 statute required registration of all private claims of title to lands under navigable waters. *Id.* at 10-11.
23. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
24. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975). The court relied on *United States* v. *Louisiana*, 339 U.S. 699 (1950); and *United States* v. *Texas*, 339 U.S. 707 (1950).
25. *McKenzie's Executors* v. *Hulet*, 4 N.C. 613 (1817).
26. 277 N.C. 297, 177 S.E. 2d 513.
27. 277 N.C. at 303, 177 S.E. 2d at 516.
28. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). See *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and Vol. 49, No. 2, April 1981, p. 21.
29. The North Carolina court also cited a California Court of Appeal decision, *People* v. *Wm. Kent Estate Co.*, 242 Cal. App. 2d 156, 51 Cal. Rptr. 215 (1966), which holds that the boundary is to be determined by using the 19-year mean of the "high neap tides." For a criticism of the *Kent* decision, see *Shore and Beach*, Vol. 49, No. 2, April 1981, pp. 21-22.
30. N.C. Gen. Stat. § 77-20. See also NCCMP, *supra*, note 1, at 260.
31. *Carolina Beach Fishing Pier* v. *Town of Carolina Beach*, *supra*, 277 N.C. at 304, 177 S.E. 2d at 517; *Jones* v. *Turlington*, 213 N.C. 681, 92 S.E. 2d 75 (1956). See also Rice, *supra*, note 2, 46 N.C.L. Rev. at 806.
32. *Carolina Beach Fishing Pier* v. *Town of Carolina Beach*, *supra*, 277 N.C. at 304, 177 S.E. 2d at 517.
33. N.C. Gen. Stat. § 146-6 (a).
34. In that case, a "berm or sand seawall" about 15 feet high had been built by the town to prevent or reduce erosion. The court held that title to the area where the berm was built is vested in the town rather than the private owners whose lands had been previously eroded. *Carolina Beach Fishing Pier, Inc.* v. *Town of Carolina Beach*, *supra*, 277 N.C. at 304, 177 S.E. 2d at 517.
35. *Davis* v. *Morgan*, 288 N.C. 78, 44 S.E. 2d 593 (1947). In addition, it is statutorily provided: "If any land is, by act of man, raised above the high watermark of any navigable water by filling, except such filling be to reclaim lands theretofore lost to the owner by natural causes or as otherwise provided . . ., title thereto shall vest in the State and the land so raised shall become a part of the vacant and unappropriated lands of the State, unless [certain procedures are followed]." N.C. Gen. Stat. § 146-6(b) (Supp. 1981).
36. NCCMP, *supra*, note 1, at 125-126.
37. *Id.* at 175, 183-191.
38. Under this common-law concept, the public is entitled to navigate tide-flowed waters irrespective of whether the underlying lands are publicly or privately owned. For a brief discussion of the origin and development of the doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
39. One of the requirements under North Carolina's 1777 statute creating the entry-and-grant system is that the tract of land be surveyed and that "the Water shall form one side of the Survey." Ch. 1, § IX, [1777] N.C. Sess. L. 46. The court in *Tatum* v. *Sawyer*, *supra*, 9 N.C. 226, interpreted this language to mean that the statute had not intended to allow private parties to gain title to lands covered by navigable waters because those lands and waters were necessary "for the convenience of all," being "common highways." *Id.* at 229. The case involved land that had been a sandy beach, subject to the ebb and flow of the tide, in 1807, when defendant's land was granted, but that had become a marsh by 1819, the time of plaintiff's grant. The court said that as a result of this physical change in the character of the land, it no longer was exempted from entry.
40. Comment, *supra*, note 2, 49 N.C.L. Rev. at 901. The case, *Wilson* v. *Forbes*, 13 N.C. 30 (1828), concerned Albemarle and Pamlico Sounds. The court stated that because these inland seas are not subject to the tide, they would not be deemed navigable waters under the English common law and that they would be the subject of private property. *Id.* at 34-35. However, the sounds are navigable by seagoing ships, and the case apparently was the first to suggest that North Carolina would use navigability by "sea vessels" as well as the tidal ebb-and-flow test in determining navigability.
41. *Illinois Central Railroad* v *Illinois*, 146 U.S. 387 (1892).
42. 132 N.C. 366, 44 S.E. 39 (1903).
43. Schoenbaum, *supra*, note 2, 51 N.C.L. Rev. at 17.
44. *Ibid.* See also Rice, *supra*, note 2, 46 N.C.L. Rev. at 801-802.
45. "Marshland" is defined in North Carolina's dredge-and-fill statute as "any salt marsh or other marsh subject to the regular or occasional flooding by tides, including wind tides (whether or not the tidewaters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides." N.C. Gen. Stat. § 113-229(n)(3). For a brief discussion of some of the title questions concerning marshlands, see "Title to Lands Within the Coastal Zone," *supra*.
46. *Parmele* v. *Eaton*, 240 N.C. 539, 83 S.E. 2d 93 (1954); *Resort Development Co.* v. *Parmele*, 235 N.C. 689, 71 S.E. 2d 474 (1952); *Home Real Estate Loan & Insurance Co.* v. *Parmele*, 214 N.C. 63, 197 S.E. 714 (1938).
47. Comment, *supra*, note 2, 49 N.C.L. Rev. at 904.
48. *Swan Island Club, Inc.* v. *White*, 114 F. Supp. 95, 105 (E.D.N.C. 1953) *aff'd sub nom. Swan Island Club, Inc.* v. *Yarborough*, 209 F.2d 698 (4th Cir. 1954). The federal trial judge conceded that "North Carolina has not decided the question of the right of the public to use the navigable waters over privately owned lands, whether they may be used for hunting as an incident to navigation, or whether such right is inherent in the public. . . ." 114 F.Supp. at 103.
49. N.C. Gen. Stat. § 113A-100 *eq seq.*
50. N.C. Gen. Stat. § 113A-113(b) (5).
51. NCCMP, *supra*, note 1 at 180.

52. N.C. Gen. Stat. § 113A-131.1 *et seq.* (Supp. 1981).
53. N.C. Gen. Stat. § 113A-134.3 (Supp. 1981).
54. N.C. Gen. Stat. § 113A-134.1, 134.2 (Supp. 1981).
55. N.C. Gen. Stat. § 113A-134.2 (Supp. 1981).
56. NCCMP, *supra*, note 1, at 121. See also *id.* at 273: "Providing adequate beach access is another issue that will be addressed through State coastal policy. These policies will help to secure funds to purchase access points and facilities such as walkways."
57. For a brief discussion of *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P.2d 671 (1969), see *Shore and Beach*, Vol. 50, No. 3, July 1982, pp. 19-20.
58. For a brief discussion of *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal. 3d 29, 84 Cal.Rptr. 152, 465 P.2d 50 (1970), see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23.
59. Schoenbaum, *supra*, note 2, 51 N.C.L. Rev. at 20.
60. *Id.* at 19; see also "Title to Lands Within the Coastal Zone," *supra*. The North Carolina Coastal Management Program, after noting the public access available in the national seashores, states: "Public access beaches along the 160 miles of the North Carolina coast not yet publicly owned is not as favorable. Some communities have provided for public access, but in many areas, access has never been a problem and no provisions have been made to insure that it will not be a problem in the future. In fact, there are few areas where access is denied to the public. It is recognized, however, that increased development in and use of the shoreline may cause beach access to become a problem in the future." NCCMP, *supra*, note 1, at 121.
61. See "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.
62. *Carolina Beach Fishing Pier, Inc.* v. *Town of Carolina Beach*, *supra*, 277 N.C. 297, 177 S.E. 2d 513; *Capune* v. *Robbins*, 273 N.C. 581, 160 S.E. 2d 881 (1968).
63. 273 N.C. at 587-588, 160 S.E.2d at 885-886; *Barfoot* v. *Willis*, 178 N.C. 200, 100 S.E. 303 (1919).
64. N.C. Gen. Stat. § 146-12. The Department of Administration, with the approval of the governor and the Council of State, issues the grants "for such purposes and upon such conditions as it may deem proper."
65. N.C. Gen. Stat. § 146-8. Leases are "subject to all rights of navigation and subject to such other terms and conditions as may be imposed by the state." The leases are issued at the request of the Department of Natural Resources and Community Development.
66. N.C. Gen. Stat. § 113-202. The Marine Fisheries Commission is responsible for such leases.
67. N.C. Gen. Stat. § 146-50. The Department of Administration, with the approval of the governor and the Council of State, is responsible for such leases.
68. Schoenbaum, *supra*, note 9, 53 N.C.L. Rev. at 280-281.
69. *Id.* at 281. (Footnotes omitted.) Dredging and filling "in any estuarine waters, tidelands, [and] marshlands" are regulated under state law. N.C. Gen. Stat. § 113-229. Permits must be obtain from the Department of Natural Resources and Community Development. See Morgan, *supra*, note 2, 49 N.C.L. Rev. at 859-861, 863, 865.
70. N.C. Gen. Stat. § 113-230 (Supp. 1981). Under this law, "orders regulating, restricting, or prohibiting dredging, filling, removing or otherwise altering coastal wetlands" may be adopted, amended, modified or repealed by the secretary of natural resources, with the approval of the Marine Fisheries Commission.
71. Schoenbaum, *supra*, note 9, 53 N.C.L. Rev. at 281.
72. N.C. Gen. Stat. § 113A-100 *et seq.* For a detailed discussion of the evolution of CAMA, see Heath, *supra*, note 7, 53 N.C.L. Rev. 345. See also Schoenbaum, *supra*, note 9, 53 N.C.L. Rev. 275.
73. Schoenbaum, *supra*, note 9, 53 N.C.L. Rev. at 284-285. See also N.C. Gen. Stat. § 113A-109 *et seq.*
74. Schoenbaum, *supra*, note 9, 53 N.C.L. Rev. at 285-286. (Footnote omitted.) See also N.C. Gen. Stat. §§ 113A-104, 113A-113, 113A-115.
75. *Adams* v. *North Carolina Dept. of Natural & Econ. Res.*, 295 N.C. 689, 249 S.E. 2d 402 (1978). For discussions of the implementation of the act, see Glenn, *The Coastal Area Management Act in the Courts: A Preliminary Analysis*, 53 N.C.L. Rev. 304 (1974); Schoenbaum & Rosenberg, *The Legal Implementation of Coastal Zone Management: The North Carolina Model*, 1976 Duke L.J. 1.
76. NCCMP, *supra*, note 1, at 54-58, 165-223. The two-tier approach is summarized at 54-56 as follows:

"The first tier consists of critical resource areas, . . . (AECs), in which most significant land and water uses are regulated by permits. The second tier consists of the area . . . outside the [AECs] . . .

". . .

"Nearly all development activities in the AECs are regulated by permit. The authority for administering the CAMA permit program in AECs is shared between the CRC and local government units . . . . The CRC will process applications for major development permits and appeals of local decisions concerning minor development application . . .

". . .

"[In the second-tier areas,] the program calls for a more limited state role. The state will involved in decision-making in non-AEC areas only where uses and activities which have a potential for directly and significantly affecting coastal resources are being proposed. . . ."

The Law of the Coast in a Clamshell*

Part XI: The Washington Approach

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Washington State's coastal zone, encompassing a 2,337-mile marine shoreline,[1] consists of two distinct types of land formation: glaciated regions in the north and gentle coastal plains in the south.

Puget Sound, dotted with the scenic islands of the San Juan Archipelego, and the north shore of the Olympic Peninsula reflect the sculpturing of glaciers. The Pacific Ocean north of the Quinault River has rugged headlands (Fig. 1) and narrow rocky beaches. By contrast, along the south coastal plain extending to the mouth of the Columbia River there are wide sandy beaches and extensive dunes.[2].

One of those broad beaches was the subject of an epic legal battle in the mid-1960s between the State of Washington and Mrs. Stella Hughes, an upland owner. The beach had widened by more than 500 feet since 1889, when Washington joined the Union, and under state law the boundary between the state's tidelands and the uplands was permanently fixed as of 1889.

But in 1967 the United States Supreme Court held that federal law, which provides that the boundary moves seaward with accretion, controlled over state law and that Mrs. Hughes was entitled to the accreted land.[3] And in 1982 the Supreme Court dashed the state's hopes by refusing to overturn that earlier decision.[4]

Although Mrs. Hughes' beach victory had a significant impact, it was probably the mushrooming development of the shoreline of the Puget Sound area and a court decision about filling along a lakeshore that prompted the Evergreen State to become a pacesetter in coastal zone regulation. The Shoreline Management Act of 1971[5] was ratified by the voters the following year, and in 1976 the Washington State Coastal Zone Management Program was the first such program in the nation to be approved by the Federal Government.[6]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Washington's coastal zone lies within 15 counties fronting on the tidal waters of the Pacific Ocean and its bays, Puget Sound, and the Straits of Georgia and Juan de Fuca.[7] Lands within the first tier of the zone, which extends 200 feet landward of the shoreline[8] may be divided into uplands, tidelands, and submerged lands.[9]

A. Uplands

Private parties own three-quarters of the coastal counties' littoral lands,[10] with titles generally stemming from federal grants. About 155 miles of the coastline belong to the United States, including Olympic National Park and various wildlife refuge areas.[11] State and local governments have title to 107 miles of shoreline.[12].

B. Tidelands

Upon entering the Union on November 11, 1889,[13] Washington assumed ownership of all tidelands not previously disposed of by the predecessor territorial government.[14] The state's Constitution expressly asserts ownership[15] while disclaiming title to lands patented by the United States.[16]

Under the equal-footing doctrine,[17] Washington has the same sovereignty and jurisdiction over tidelands as the original states.

To protect the state's harbor areas, the Washington Constitution established a harbor line system.[18] It was provided that Harbor lines be fixed in front of incorporated cities and that the bed of harbor areas be reserved forever for navigation, commerce and related purposes.[19]

Although commercially important areas generally were reserved for public ownership and control,[20] the state sold approximately 60 percent of its tidelands to private parties between 1889 and 1971, when such sales were discontinued by law.[21]

State-owned tidelands are divided into first-class and second-class tidelands. First-class tidelands are those

> "lying with or in front of the corporate limits of any city, or within one mile thereof upon either side and between the line or ordinary high tide and the inner harbor line, and within two miles of the corporate limits on either side and the line of extreme low tide."[22]

Tidelands not within or near cities are second-class tidelands.[23]

C. Submerged Lands

Washington has title to submerged lands within a 3-geographical-mile belt by virtue of the Submerged Lands Act of 1953.[24]

This is the 10th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of North Carolina concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California. *© 1983 by Peter H.F. Graber. The author also asserts copyright protection for the first name articles in the series.*

DETERMINATION OF TIDAL BOUNDARIES

A. Upland-Tideland Boundary

By a provision in the 1889 Washington Constitution, the landward boundary of the state-owned tidelands is defined as "the line of ordinary high tide."[25] What does this nontechnical term mean?

In 1966 the Washington Supreme Court attempted to answer this question. The court's decision in *Hughes* v. *State*,[26] while primarily concerned with ownership of accreted lands, construes the constitutional boundary provision as meaning "the line which the water impresses on the soil by covering it for the sufficient periods of time to deprive the soil of vegetation."[27]

However, while adopting a vegetation line definition, the Washington court's opinion also seems to accept the engineering approach in determining the tidal boundary that was set forth in the United States Supreme Court's 1935 *Borax* decision.[28] That approach calls for using a tidal datum based on a mean of all the high tides over an 18.6-year tidal cycle. The state court's opinion thus is perplexing because the *Borax* rule is contrary to the vegetation line concept.[29]

To confuse the question of the meaning of Washington's constitutional provision even more, the U.S. Supreme Court reversed the state court's *Hughes* opinion.[30] But the nation's high court, concentrating on the accretion problem (see below), did not discuss the vegetation line concept.[31]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Over the years, as the beaches along the southerly part of Washington's Pacific coast gradually widened, disputes flared between the state and private upland owners about ownership of the accreted lands.

Before 1961 there were more than 70 lawsuits involving some 300 parcels in which title to these lands was at stake.[32] Applying state law, the trial court in those cases uniformly awarded the state title to the accreted lands, holding that the property boundary had been permanently fixed at its location in 1889 upon Washinton's statehood.[33] And in 1966 the state's Supreme Court, in *Hughes* v. *State*, cited those trial court cases as a basis for the "rule of property" in Washington that littoral owners had no vested right to future accretions.[34]

But Mrs. Hughes, the successor to the recipient of a federal upland patent issued before statehood, took her case to the U.S. Supreme Court. In 1967 the Supreme Court reversed the state court, holding that Mrs. Hughes entitled to a 561-foot-wide strip of beach that had accreted seaward of the 1889 vegetation line because

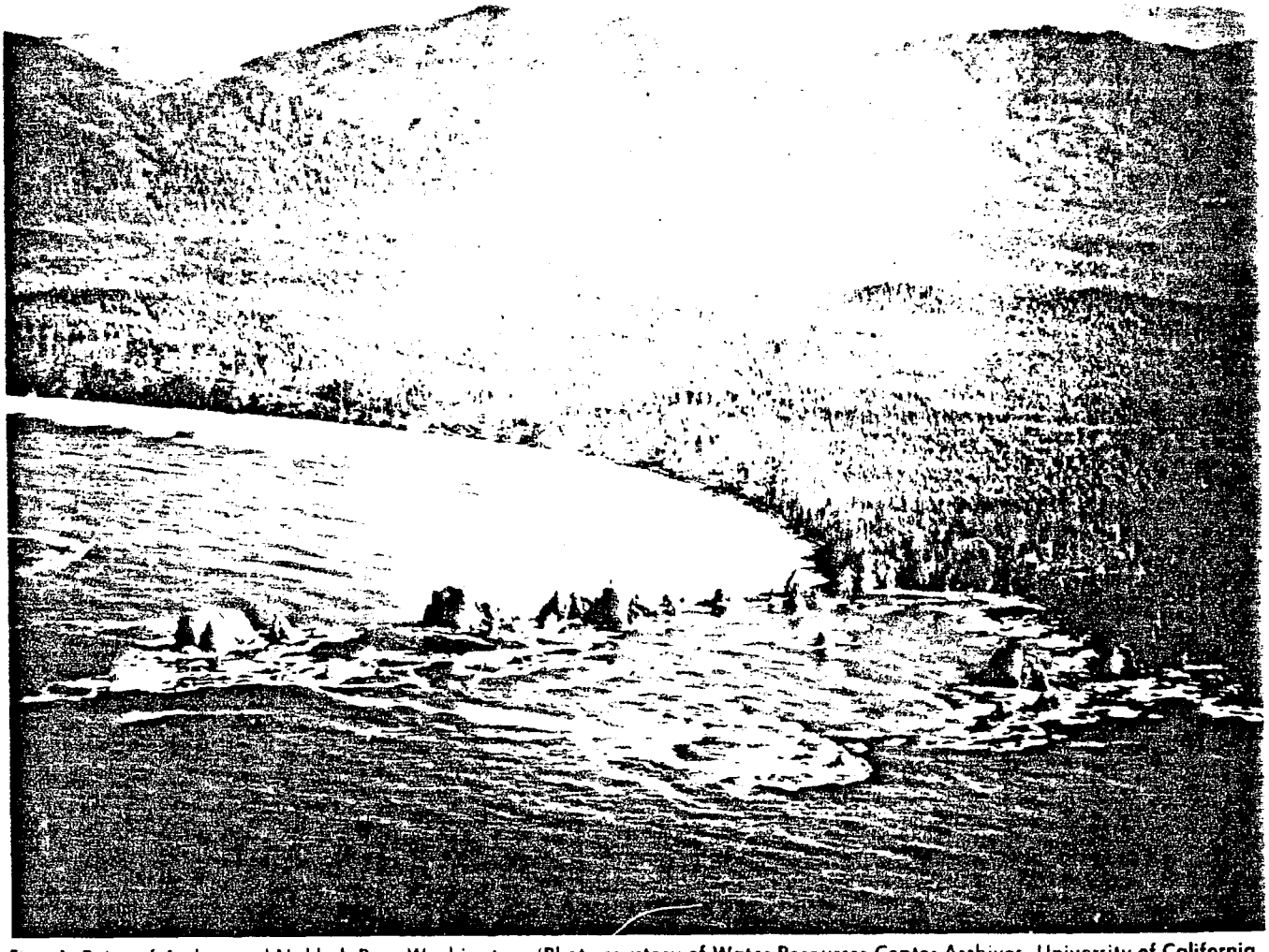

Fig. 1 Point of Arches and Nukkah Bay, Washington. (Photo courtesy of Water Resources Center Archives, University of California, Berkeley)

federal rather than state law controlled.[37]

The U.S. Supreme Court based its decision on the principle that the extent of ownership under a federal grant, including the question of title to accretion, is governed by federal law.[38] And under federal law, the court pointed out, there was a "long and unbroken line of decisions . . . that the grantee of land bounded by a body of navigable water acquires a right to any natural and gradual accretion formed along the shore."[39]

In its *Hughes* opinion, the U.S. Supreme Court injected another rationale for following federal rather than state law in cases of shoreline changes along the open ocean coast when the source of title is a federal patent:

> "The rule [concerning the extent of a federal grant] deals with waters that lap both the lands of the State and the boundaries of the international sea. This relationship, at this particular point of the marginal sea, is too close to the vital interest of the Nation in its own boundaries to allow it to be governed by any law but the 'supreme Law of the Land.'"[40]

When the upland owners who had been denied title to the accreted lands in the earlier state trial court lawsuits learned of Mrs. Hughes' good fortune, they tried to get the judgments in those cases changed so they, too, would benefit from the accretion. But in 1978 the Washington Supreme Court turned down their requests.[41]

Meanwhile, the state had been given some hope that the U.S. Supreme Court might retreat from its 1967 *Hughes* decision. In a 1977 case involving an Oregon river the court appeared to cast doubt on *Hughes*, although declining to reconsider that decision.[42]

Then, in June 1982, the U.S. Supreme Court breathed new life into its *Hughes* decision in *California ex rel. State Lands Comm'n* v. *United States*.[43] The court reaffirmed *Hughes* and flatly held "that a dispute over accretions to oceanfront land where title rests with or was derived from the Federal Government is to be determined by federal law."[44]

With this latest Supreme Court decision, it seems that the long uncertainty over ownership of accreted lands along most of Washington's coastline has been resolved. In general, it appears that the upland/tideland boundary is an ambulatory line instead of a line permanently fixed as of 1889.[45] However, there remains a checkerboard pattern of different legal boundaries, even in the same locales, because of the pre-*Hughes* state court judgments; some private lands continue to be bounded by the 1889 line[46] while others extend to the present line.

Ownership of the accreted lands apparently is now finally resolved, but there is the potential for future legal problems over public access to an use of these areas.[47]

While accretion has been the focus of the courts' attention in Mrs. Hughes' case and other lawsuits, the Washington State Coastal Zone Management Program's 1979 Amendments address the problem of erosion in considerable detail.[48] The program designated as areas of particular concern two sites that have been subject to severe erosion, Toke Point in Willapa Bay and Ediz Hook on the Strait of San Juan de Fuca.[49]

WASHINGTON'S PUBLIC TRUST DOCTRINE

The Washington Supreme Cout has not had occasion to apply the public trust doctrine[50] as explicitly and extensively as courts in such states as California[51] and New Jersey.[52].

However, early Washington cases recognized the public's right of navigation in tidelands.[53] And in a 1969 decision involving a lake rather than tidal waters,[54] the state's high court acted to protect the navigational right although not expressly referring to the public trust doctrine.

As a result of these and other cases, two legal writers have asserted that the "doctrine clearly seems to exist in Washington."[55]

PUBLIC ACCESS RIGHTS

In 1901 the Washington Legislature declared that the state's Pacific Ocean shore and beaches shall be a "public highway forever,"[56] thus encouraging public use of and access to the ocean beaches. A 1963 law reserved a portion of the Pacific coast as a "public recreation area."[57] Many of these beaches are now within the Seashore Conservation Area, which includes a number of access points for the public.[58] The State Park and Recreation Commission administers this area.

Master programs developed by local governments under the state's Shoreline Management Act of 1971[59] are required to include a "public access element making provision for public access to publicly owned areas."[60] Permits issued under this act or under local government land-use authorities may require the provision of public access as a condition for approval.[61]

As yet, the customary rights doctrine of Oregon[62] and the implied dedication theory of California,[63] both of which have been used to encourage public access, have not been applied by Washington's appellate courts. It appears, however, that those courts could be called upon in the future to decide beach access questions arising from the judicially declared principle that private upland owners whose source of title was the United States are entitled to accreted lands.[64]

PRIVATE LITTORAL RIGHTS

When the State of Washington was selling tidelands into private ownership, the owners of the abutting uplands had a preferential right of purchase.[65] Except for that right, however, the owners' littoral rights are more limited than those of their counterparts in other coastal states.[66]

Presumably, the recent U.S. Supreme Court decisions on the ownership of accreted lands[67] will assure most private upland owners who do not also own the adjoining tidelands of access to tidal waters. Previously, under the state rule, that access could be cut off because the state was entitled to the accreted lands.

LEASE AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The state is empowered to lease much of its tide and sumberged lands "for the purpose of prospecting for,

developing and producing oil, gas or other hydrocarbon substances."[68] Leases for this purpose are not permitted along part of the Pacific Ocean shore and beach that has been legislatively declared a "public highway."[69] A number of statutes govern leases for other purposes.[70]

B. Regulatory Functions

Comprehensive regulation of Washington's coastal zone was initiated with the Shoreline Management Act of 1971 (SMA),[71] ratified by the voters the following year.[72] The Legislature, in enacting SMA, declared:

> "It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a mannner which, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest . . . ."[73]

Under this act, each city and county within the coastal zone has developed a master program covering the conduct of shoreline uses and activities. After state approval, the local programs became part of the State Master Program.[74] The programs, which apply to water-covered areas and uplands within 200 feet of the ordinary high-water mark, are implemented through a permit system.[75]

The Shoreline Management Act is the cornerstone of the Washington State Coastal Zone Management Program,[76] which was approved by the Federal Government in 1976. The state's Department of Ecology has the primary responsibility for administering this program,[77] but many other agencies have responsibilities for various aspects of it.[78].

ACKNOWLEDGMENTS

The author is grateful to Robert C. Hargreaves, assistant attorney general, Office of the Attorney General, and Don M. Peterson, section head, Shorelands Division, Department of Ecology, State of Washington, for providing some of the information and source material cited in this article.

REFERENCES

1. Most of the shoreline—1,784 miles—borders on Pudget Sound and the Strait of Georgia (including the shorelines of 172 signigicant islands of the San Juan Archipelego). The balance includes 157 miles alone the Pacific Ocean, 144 miles along the Strait of Juan de Fuca, 129 miles in Willapa Bay, 89 miles in Grays Harbor and 34 miles on the Columbia River. *Washington State Coastal Zone Management Program* 5 (1976) [hereinafter referred to as WSCZMP].
2. *Id.* at 5-7, 9.
3. *Hughes* v. *Washington*,389 U.S. 290 (1967). For a discussion of this decision, see "Legal Effect of Physical Changes in the Shoreline" under "Determination of Tidal Boundaries," *infra*.
4. *California ex rel. State Lands Comm'n* v. *United States*, 102 S.Ct. 2432 (June 18, 1982).
5. Wash. Rev. Stat. § 90.58.010 *et seq.* A primary impetus to the enactment of this law, which applies to lakes as well as the coast, was the Washington Supreme Court's decision in *Wilbour* v. *Gallagher*, 77 Wash.2d 306, 462 P.2d 232, *cert. denied*, 400 U.S. 878 (1969), a case involving Lake Chelan.
6. For a brief discussion of the program, see "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
7. WSCZMP, *supra*,note 1, at 5.
8. Permits are required for development in the first tier under the Washington State Coastal Zone Management Program, the heart of which is the Shoreline Management Act. For a brief discussion of the act, see "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*. The rest of the 15 counties comprise the second tier of the coastal zone.
9. This classification is used for convenience and consistency with other articles in this series. In the series, tidelands have been generally defined as lands lying between the lines of mean high and mean low water, but under Washington law, tidelands are sometimes defined in terms of the inner harbor line or the line of extreme low tide. See note 21, *infra*, and accompanying text.
10. About 2,075 miles of the state's shoreline were in private ownership as of 1976. WSCZMP, *supra*, note 1, at 10.
11. *Ibid.* Federally owned and managed lands are excluded from Washington's coastal zone. *Id.* at 121-122.
12. *Ibid.*
13. *Port of Seattle* v. *Oregon & W. R. R.*, 255 U.S. 56, 63 (1920); Pres. Proc. No. 8, 26 Stat. 1552; 25 Stat. 676.
14. In 1853 the Territory of Washington was established, succeeding the Oregon Territory as to the area within what is now the State of Washington. Territorial laws had granted some tidelands into private ownership. 1 R. Powell, *The Law of Real Property*, § 88, p. 333 (Rev. ed. 1981).
15. Wash. Const. art. XVII, § 1, provides in part: "The state of Washington asserts its ownership to the beds and shores of all navigable waters in the state up to and including the line of ordinary high tide, in waters where the tide ebbs and flows, . . ."
16. *Id.* art. XVII, § 2.
17. For a brief discussion of the equal-footing doctine, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
18. Wash. Const. art. XV.
19. *Ibid.* For a discussion of the harbor line system, see Johnson & Cooney, *Harbor Lines and the Public Trust Doctrine in Washington Navigable Waters*, 54 Wash. L. Rev. 275 (1979).
20. *Id.* at 288-289.
21. WSCZMP, *supra*, note 1, at 72-73, Wash. Rev. Code § 79.01.470. The way in which such tidelands were described varied from time to time. "At first, tidelands were sold by metes and bounds fixed by surveys. . . . However, in 1895 a law was passed defining the seaward boundary of tidelands as 'the line of *mean* low tide' of 'the inner harbor line' where one had been established . . . . The definition was amended 16 years later by extending the boundary of tidelands out to '*extreme* low tide' or 'the inner harbor line.'" Johnson & Cooney, *supra*, note 19, 54 Wash. L. Rev. at 289 n. 64. (Emphasis added.)
22. Wash. Rev. Code § 79.01.020.
23. *Id.* § 79.01.024.
24. 67 Stat. 29; codified at 43 U.S.C. § 1301 et. seq.
25. Wash. Const. art. XVII, § 1.
26. 67 Wash. 2d 799, 410 P.2d 20 (1966). Generally, a state's highest courts's interpertation of a state constitutional provision is controlling, but this decision was subsequently reversed by the U.S. Supremet court in *Hughes* v. *Washington*, 389 U.S. 290, on the accretion issue.
27. 67 Wash. 2d at 811, 410 P.2d at 27, quoting from *Harkins* v. *Del Pozzi*, 50 Wash. 2d 237, 240, 310 P.2d 532, 534 (1957).
28. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). See *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and vol. 49, No. 2, April 1981, p.21.
29. For a detailed analysis of the state courts's *Hughes* opinion and the *Borax* "mean high tide" rule, see Corker, *Where Does the Beach Begin, and to What Extent Is This a Federal Question*,42 Wash. L. Rev. 33, 43-46 (1966).
30. *Hughes* v. *Washington*, *supra*, 389 U.S. 290.
31. It could be argued that the vegetation line concept, which was adopted by the Washingotn supreme court in a portion of its *Hughes* decision that was not expressly overruled, remains as that courts's interpretation of the meaning of the state's constitutional provision.
32. In *Wilson* v. *Howard*, 5 Wash.App. 169, 180, 486 P.2d 1172, 1178 (1971), the state's Court of Appeals held that the boundary is "the line of ordinary high watermark," which the court equated with "the line of mean high tide determined as nearly as possible by

calculating the avarage height of all high tides . . . over the 18.6 year tidal cycle."

33. The Shoreline Management Act of 1971 defines "ordinary high-water mark" in terms of vegetation, although adding that such mark may be the line of mean *higher* high tide. Wash. Rev. Code § 90.58.030(2) (b); see also the administrative rule set forth in Wash. Adm.Code § 173-16-030(10).
34. These cases were brought by the private property owners. See discussions in *Columbia Rentals, Inc.* v. *State*, 89 Wash.2d 819, 820, 576 P.2d 62, 63 (1978); *Hughes* v. *State, supra*, 67 Wash.2d 799, 810-811, 410 P2d 20, 26-27, *rev'd sub nom. Hughes* v. *Washingotn, supra*, 389 U.S. 290.
35. As the state court said in *Hughes, supra*, 67 Wash.2d at 811, 410 P.2d at 27: "In practically all of the judgments the 1889 line as surveyed and described therein is judicially determined to be the line of 'ordinary high tide where it existed on the 11th day of November, 1889, established by the commissioner of public lands.'" None of the trial court judgments in these cases was appealed.
36. 67 Wash.2d at 814, 410 P.2d at 28. The court also relied on Art. XVII, § 1 of the state's Constitution, quoted in note 15, *supra*, saying: "The state's constitutional assertion of ownership in 1889 terminated any rights the upland owner may have had to future accretions." 67 Wash.2d at 814, 410 P.2d at 29.

    In 1961 the Ninth Circuit Court of Appeals had held that the heirs of a Quinault Indian to whom the United States had issued a trust patent after statehood were entitled to accreted lands. *United States* v. *Washington*, 294 F.2d 830 (9th cir. 1961), *cert. denied*, 369 U.S. 817 (1962). This federal court decision was contrary to the state court decisions relied upon by the Washington Supreme Court in its *Hughes* opinion because it applied federal law to determine the boundary.
37. 389 U.S. at 291
38. 389 U.S. at 292
39. 389 U.S. at 293
40. *Ibid.*
41. *Columbia Rentals, Inc.* v. *State, supra*, 89 Wash.2d 819, 576 P.2d 62
42. *Oregon ex rel. State Land Board* v. *Corvallis Sand & Gravel Co.*, 429 U.S. 363 (1977). In that case the court held that state law rather than federal law governs the legal effect of physical changes in the waterward boundary of lands conveyed under a federal patent and adjoining a *nontidal* stretch of a navigable river. In the view of the dissent in *Corvallis*, the "holding also overrules *Hughes* v. *Washington*," although the majority did not so rule. 429 U.S. at 363 (Marshall, J., dissenting). See the brief discussion of *Corvallis in Shore and Beach*, Vol. 50, No. 3, July 1982, p. 22 n. 31.
43. 102 S.Ct. 2432 (June 18, 1982). This case involved title to accretions adjoining a U.S. Coast Guard facility on the open ocean coast in California; the case thus differed from *Hughes*, in which the United States had patented the uplands into private ownership. The State of Washington filed an *amicus curiaw* (friend of the court) brief supporting California in this matter in the attempt to have the U.S. supreme Court expressly overrule its *Hughes* decision.
44. 102 S.Ct. at 2438. The court thus lumped together uplands still retained by the Federal Government and uplands that had been patented by the United States into private ownership.
45. This concluson is based on the fact that the Federal Government is the source of title of most of the privately owned littoral lands along the Washington coast. The seaward boundaries of the majority of these parcels, unlike Mrs. Hughes' property, have not been the subject of litigation. Assuming there is litigation over the boundaries of federally patented uplands, it appears that the U.S. Supreme Court's 1967 *Hughes* holding and its 1982 *California* decision, unless changed by a later decision, would require application of the federal rule rather than the state rule.
46. As of this writing there is no indicaton that the pre-*Hughes* judgments will be changed. See note 41, *supra*, and accompanying text about the Washington Supreme Court's 1978 decision on those judgments.
47. In settlements of boundary disputes along the coast, the state includes provisions that it is not waiving any claims that the public may have under such legal theories as custom. Telephone conversation on Jan. 6, 1983, with Robert C. Hargreaves, assistant attorney general, State of Washington. See also "Public Access Rights," *infra*.
48. *Washington State Coastal Zone Management Program Amendments* 59-87 (1979).
49. *Id.* at 86.
50. This doctrine, which originated at common law, assures the public's right of navigation in tidal waters whether the underlying lands are in public or private ownership. For a brief discussion of the origin and development of the concept, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
51. For a brief discussion of California cases, including *Marks* v. *Whitney*, 6 Cal. 3d 251, 98 cal. Rptr. 790, 491 P.2d 374 (1971), see *Shore and Beach*, vol. 49, No. 2, April 1981, pp. 22-23.
52. For a brief discussion of New Jersey cases, including *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*, 61 N.J. 296, 294 A.2d 47 (1972), see *Shore and Beach*, Vol. 50, No. 2, April 1982, p. 11.
53. See, *e.g.*, *State* v. *Sturtevant*, 76 Wash. 158, 135 P. 1035 (1913); *Hill* v. *Newell*, 86 Wash. 227, 231, 149 P. 951, 952 (1915), approving the reasoning of the landmark California public trust decision, *People* v. *California Fish Co.*, 166 Cal. 576, 138 P. 79 (1913).
54. *Wilbour* v. *Gallagher, supra*, 77 Wash.2d 306, 462 P.2d 232, *cert. denied*, 400 U.S. 878.
55. Johnson & Cooney, *supra*, note 19, 54 Wash.L.Rev. at 287. It is unknown why the Washington appellate courts have not explicitly referred to or relied upon the public trust doctrine. Perhaps it is because the public's right to use the state's harbor areas was protected by the state constitutional provision establishing a harbor line system referred to in the text accompanying notes 18 and 19, *supra*.
56. 1901 Wash. Laws, chs. 105, 110. The legislative purpose in declaring the tidelands to be a "public highway" "was, not so much to establish a thoroughfare, as it was to preserve the beach as a recreational ground for the use of the public." *Williams Fishing Co.* v. *Savidge*, 152 Wash. 165, 181, 277 P. 159, 464 (1929). See Wash. Rev. Code §§ 79.16.130, 79.16.160 for declaraton as a "public highway."
57. The Legislature declared that that portion of the "public highway" established by the 1901 laws "lying between the line of vegetation and the line of mean high tide, as such lines now are or may hereafter be, is . . . a public recreation area and is . . . set aside and reserved for the use of the public." 1963 Wash. Laws, ch. 212. See Wash. Rev. Code § 79.16.172 (Supp. 1982) for declaration as a "public recreation area."
58. "The area consists of the lands which fall generally between extreme low tide and ordinary high tide. . . . Public access points have been provided at intervals to enable the republic to reach the beach." WSCZMP, *supra*, note 1, at 95-96. The Seashore Conservation Act, Wash. Rev. Code § 43.51.650 *et seq.*, was passed in 1967 and limited nonrecreational use of the Pacific Ocean coast.
59. *Id.* § 90.58.010 *et seq.*
60. Wash. Rev. Code § 90.58.100 (2) (b).
61. WCSZMP, *supra*, note 1, at 100-101.
62. For a brief discussion of *State ex. rel. Thornton* v. *Hay*, 254 Or. 584, 462 P.2d 671 (1969), see *Shore and Beach*, Vol. 50, No. 3, July 1982, pp. 19-20.
63. For a brief discussion of *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal.3d 29, 84 Cal.Rptr. 152, 465 P.2d 50 (1970), see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23.
64. See note 47, *supra*, concerning settlements of boundary disputes along the coast in which the state does not waive various claims that the public may have. At some future time, when the public exercises a claimed right of access across accreted land, it seems that litigation could arise to test the validity of that claim.
65. This right originated in 1890; further sales of state-owned tidelands were prodhibited by statute in 1971. WSCZMP, *supra*, note 1, at 72-73. See also Obenour, *Water Boundaries, Tide and Shore Land Rights*, 23 Wash. L. Rev. 235, 241 (1948).
66. Sixty years ago, the U.S. Supreme Court, discussing Washington law, said in apart: "Under the law of Washington (which differs in this respect from the law generally prevailing elsewhere) a conveyance by the State of uplands abutting upon a natural navigable waterways grants no right of any kind . . . in land below highwater mark, . . ." *Port of Seattle* v. *Oregon & W. R. R.*, *supra*, 255 U.S. 56, 64. However, one legal writer pointed out that statements of this nature are too sweeping and actually mean "that there are no riparian rights *as against the state or persons claiming under it*." Johnson, *Riparian and Public Rights to Lakes and Streams*, 35 Wash. L. Rev. 580, 601 (1960).
67. For discusson of these decisions, see "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination

of Tidal Boundaries," *supra*.

68. Wash. Rev. Code § 79.14.020 *et seq.* However, surface drilling for oil or gas is prohibited in designated areas of Puget Sound and the Strait of Juan de Fuca. *Id.* § 90.58.160.
69. *Id.* § 79.16.161.
70. See, *e.g.*, *id.* §§ 79.01.504, 79.01.536, 79.01.540, 79.01.568.
71. *Id.* § 90.58.010 *et seq.*
72. SMA was chosen by the electorate over an alternative shoreline regulatory measure that would have regulated a wider strip of land and centralized responsibility in the state's Department of Ecology. For a discussion of the history and regulatory design of SMA, see Crooks, *The Washington Shoreline Management Act of 1971*, 49 Wash. L. Rev. 423 (1974) (abridged and reprinted at 54 Or.L.Rev. 35 (1975)).
73. Wash. Rev. Code § 90.58.020.
74. Wash. Adm. Code § 173-19. The programs must be consistent with guidelines developed by the state department of Ecology.
75. Wash. Rev. Code § 90.58.140.
76. WSCZMP, *supra*, note 1, at 25, 29-43.
77. *Id.* at 51-70.
78. *Id.* at 70-105.

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The Law of the Coast in a Clamshell*

Part XII: The New York Approach

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New York City, which expanded from a small Dutch trading settlement into America's biggest city, literally grew up by the water. Its 548-mile shoreline far exceeds that of any other city in the nation.[1]

The tidelands encircling Manhattan Island became municipal property under a 1686 charter issued by an English colonial governor.[2] It was on these lands and on the shorelands of the other boroughs that were erected the docks, piers, and wharves that helped make New York City one of the world's greatest harbors. But the heyday of the port has passed, leaving many decaying and underutilized facilities.[3]

Revitalization of New York City's deteriorating waterfront — and other urban shores in the Empire State — is just one of the many ambitious goals of the New York Coastal Management Program[4] approved by the Federal Government in 1982.

Although the program has various economic objectives,[5] it also recognizes that seashore recreation is a valuable escape valve for the residents of New York City and its suburbs who flock to Jones Beach State Park (Fig. 1) and other Long Island beaches. Consequently, the program encourages public beach access and water-related recreation.[6]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Under the New York Coastal Management Program, the state's coastal zone comprises three distinct regions: the marine coast of Long Island and New York City, the tidal estuary of the Hudson River and the freshwater Great Lakes - St. Lawrence River area.[7]

The shoreline of Long Island and its barrier islands stretches approximately 1,475 miles along the Atlantic Ocean, Long Island Sound and the East River.[8] Extending 150 miles inland, the Hudson River estuary is a long arm of the sea. The limit of saltwater intrusion, which fluctuates with the seasons, can extend in the winter nearly to Poughkeepsie, a distance of 70 miles.[9]

New York's coastal zone extends to the limit of the state's territorial jurisdiction in the Atlantic and to its water boundaries with Rhode Island, Connecticut and New Jersey.[10]

The zone's landward boundaries vary. In the Long Island region, the zone embraces all barrier and other islands in coastal waters, and it generally extends 1,000 feet inland from the shoreline. Along the Long Island Sound coast of Westchester County, the boundary is from 1,000 to 8,000 feet inland. In New York City, it is generally from 500 to 1,000 feet inland at most locations. Along the Hudson River Valley, the boundary, in general, is 1,000 feet from the river's shoreline, but it extends 10,000 feet in some scenic and recreational areas.[11]

Lands within the coastal zone may be classified as uplands, tidelands and submerged lands.[12]

A. Uplands

Most uplands adjoining New York's coastal waters are, of course, privately owned. However, tidal wetlands such as marshes and meadows are subject to considerable regulation.[13]

B. Tidelands

Before the American Revolution, Dutch and English royal governors granted some of New York's tidelands to local municipalities. New York City and towns along Long Island's north shore received colonial charters and patents covering the foreshore and, in some instances, lands waterward of the low-tide line.[14] Colonial legislatures and the State of New York's 1777 Constitution ratified these grants, and they have been considered irrevocable.[15]

Unlike Massachusetts, where under a colonial ordinance there had been a blanket grant of tide-flowed lands to the private owners of the adjoining uplands,[16] the pre-Revolution authorities had not generally patented New York's tidelands into private ownership.

This is the 12th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the statutory and case law of the State of New York concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California. ©1983 by Peter H.F. Graber. The author also asserts copyright protection for the first 11 articles in the series.

Fig. 1 Aerial view of Jones Beach State Park, Long Island, New York (Courtesy of the Long Island State Park and Recreation Commission).

The courts have held that colonial grants in New York designating the Atlantic Ocean or Long Island Sound as a boundary extended only to the high-water mark; descriptions expressly calling to the low-water mark or otherwise including the beach were required for the tidelands to be conveyed.[17]

Except for those lands previously granted by the colonial governors and legislatures, the state on July 4, 1776, acquired title, in trust, to tidelands within its borders.[18] The state has conveyed some of these tidelands to private parties,[19] and the courts have upheld such grants of limited areas.[20]

C. Submerged Lands

New York's title to submerged lands seaward to 3 geographical miles from its Atlantic shoreline was confirmed by the Submerged Lands Act of 1953.[21] The United States Supreme Court in 1975 denied the claim of New York and other East Coast states to the area beyond the 3-mile belt.[22]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

New York, like most coastal states, recognizes a high-water legal boundary between privately owned littoral lands and public tidelands.[23] Until recently, the state's courts generally have defined the line by reference to the tides.[24] "Although in most New York decisions the courts have seemed content to refer simply to the 'high water line' as the determinant without further specification, . . . the standard appeared to be the 'mean' or 'ordinary' high water line. . . . "[25]

However, in the 1975 *Dolphin Lane* decision,[26] the Court of Appeals — the state's highest tribunal — held that the "line of vegetation" should be used to determine the high-water mark. The court said that it was the "long-standing practice of surveyors in the Town of Southampton to locate shore-line boundaries by reference to the line of vegetation."[27]

The issue in *Dolphin Lane* was the location of the boundary between private uplands and lands beneath Shinnecock Bay, a tidal body of water, held for the Town of Southampton on the south shore of Long Island.[28] At the trial, the court ruled that the original governmental conveyances under which the upland owner claimed extended only to the high-water line.[29] To locate that line, the trial court accepted as evidence the natural growth of two types of marsh grasses.[30]

On appeal, the trial court's so-called "type-of-vegetation test" was termed "an entirely new technique" and "intellectually fascinating." But in rejecting that method of determining the boundary, the Court of Appeals said its use would change the location of the line and "would do violence to the expectations of the

parties and introduces factors never within their contemplation."[31]

New York's highest court also specifically rejected tidal data as evidence of the location of the high-water mark.[32] This view is inconsistent with the U.S. Supreme Court's landmark 1935 *Borax* decision[33] holding that the location of the common-law upland/tideland boundary is ascertained by the intersection of the tidal datum of mean high water with the lands. The state justices wrote:

> ". . . In our perception and analysis of the problem it is misleadingly simplistic to conclude that resolution of this issue [the method by which the high-water mark shall be precisely located on the land] turns on the results of an exhaustive scientific search for the precise line of average high water. No legal significance attaches to the exact identification along this portion of the south shore of Long Island of refined hydrographic data . . . .
>
> ". . .If a change is to be made in the procedures for locating shore-side boundary lines to conform more precisely to hydrographic data, in our view, such innovation should be left to the Legislature."[34]

The *Dolphin Lane* opinion might be construed as suggesting that a legistative adoption of the hydrographic method would be appropriate. But the court makes any such potential "change . . . in the [boundary location] procedures" difficult by characterizing the use of the "line of vegetation" as a well-established rule of property and by emphasizing "the importance of stability and predictability in matters of title to real property"[35] As a result of this opinion, a statute providing for the use of hydrographic data probably would be challenged as an unconstitutional taking of private property, even though earlier New York cases had defined the boundary by reference to the tides.[36]

It is possible, of course, that the *Dolphin Lane* opinion might be limited by future case law to the peculiar facts of the Southampton litigation. The Court of Appeals' disparagement of "refined hydrographic data" may be disapproved in a case where such evidence is readily available.

B. Legal Effect of Physical Changes in the Location of the Shoreline

Under New York law, those gradual, imperceptible changes in the shoreline termed accretion and erosion generally result in movement of the upland/tideland boundary.[37] The legal effect is the same whether the changes are due to natural or artificial causes.[38]

However, the boundary is not shifted if the change is avulsive, *i.e.*, sudden and perceptible.[39] By equating avulsion with "sudden submergence,"[40] one court recently held that an upland owner had title to the furthest seaward line of a 1919 survey, except for portions lost by erosion or gained by accretion. The court also ruled that the owner had the right to reclaim the area that had become "suddenly submerged" as distinguished from the portion lost through erosion.[41]

Erosion is a serious problem in New York. The U.S. Army Corps of Engineers in 1981 calculated that annual damages resulting from erosion and flooding along the 120-mile length of Long Island's south shore exceed $30 million.[42] Under extreme conditions, the damages would be much more:

> "1977 estimates showed that over $750 million in damages could be inflicted on the south shore of Long Island between Fire Island Inlet and Montauk Point if the coast were assailed by the most severe hurricane likely in that locale at record high tide levels (a standard project hurricane)."[43]

The New York Legislature in 1981 passed the Coastal Erosion Hazard Areas Act[44] addressing the "areas of the state's coastline most prone to erosion hazards." This law provides for the identification of such areas and the adoption of rules and regulations intended to reduce erosion hazards.

In addition, the New York Coastal Management Program contains a lengthy discussion of flood and erosion hazards and a number of policies aimed at minimizing the effects on such hazards.[45] Policies include building setback lines, the use of nonstructural measures to minimize damages whenever possible and "[t]he construction or reconstruction of erosion protection structures . . . only if they have a reasonable probability of controlling erosion for at least thirty years . . . ."[46]

NEW YORK'S PUBLIC TRUST DOCTRINE

The public trust doctrine — the common-law theory that the public may use tidal waters for certain purposes irrespective of who owns the underlying lands — has been applied in a somewhat more limited manner in New York than in some other coastal states.

The trust concept has been used as a rationale in cases upholding the repeal of earlier attempts to convey large areas of state-owned tidelands and subaqueous lands to private interests. However, other judicial decisions have permitted grants of limited areas in which the courts found that public rights had been lawfully extinguished or restricted.

New York's first major public trust case was *Coxe* v. *State*[47] in 1895. One legal commentator has said that before *Coxe* the state's "courts had generally paid what amounts to mere lip-service to the idea of a public trust, and had occasionally denied that one existed at all."[48]

Coxe arose as a result of an 1868 act incorporating the Marsh Land Company and authorizing it to acquire the state's title to lands beneath the tidal waters of Staten Island and Long Island for a proposed dike system. In 1875 the Legislature repealed part of this statutory authorization. The Court of Appeals upheld this repeal and decided that the 1868 act "was . . . wholly ineffectual to divest the state of its ownership of the lands under water."[49] The court said:

> ". . . The title of the state to the seacoast and the shores of tidal rivers is different from [that] which an individual holds. . . . It is not a proprietary, but a sovereign right; and . . . a trust is engrafted upon this title for the benefit of the public of which the state is powerless to divest itself."[50]

Public trust principles were also applied to void a 1685 colonial patent of 11 miles of tidelands, constituting the entire oceanfront of the Borough of Queens, even though there had been no clear legislative redudiation of the patent.[51] Pointing out that the grant had been "to a private person for neither commercial nor

governmental purposes,"[52] the court suggested that such extensive conveyances of waterfront property impaired "the state's ability and sovereign authority to fulfill its obligations to the public."[53]

On the other hand, New York courts have upheld the Legislature's power to grant or to authorize grants of limited areas of tidelands to private parties when there is clear evidence of the intent to extinguish or restrict the public's rights of access and passage.

The leading case on this point, *People* v. *Steeplechase Park Co.*,[54] involved an amusement park at Coney Island that was located on both uplands and tidelands. Mrs. Huber, an upland owner, had obtained a state grant of the adjoining tidelands for her "beneficial enjoyment" without any restriction preserving public access and use. The Court of Appeals, citing the long history of the state's conveyances of tide and submerged lands to private persons and corporations, held that Mrs. Huber's title was valid and that she was empowered to exclude the general public from the granted tidelands.[55]

The State of New York, in common with other coastal states, is the trustee of the public trust under which the state holds its tide and submerged lands. But because of the colonial grants of lands beneath tidal waters to certain municipalities, it appears that the cities and towns are responsible for administering the trust as to such lands granted to or otherwise acquired by them.[56] Controversy has arisen over the power of local governments to restrict the use of municipally owned beaches to local residents.[57]

While the traditional public trust doctrine clearly encompasses the right of navigation, some legal writers feel that even this right has been narrowly construed by the New York courts.[58] Yet, in a recent case, public recreation was recognized as an appropriate trust use. The court, however, qualified such use:

> "When the tide is in, to use the water covering the foreshore for boating, bathing, fishing or other lawful purposes; and when the tide is out, to pass and repass over the foreshore as a means of access to reach the water for the same purposes."[59]

Errata in "Part XI: The Washington Approach"

Unfortunately, there were numerous typographical errors in the last article in this series, "The Law of the Coast in a Clamshell: Part XI: The Washington Approach," *Shore and Beach*, Vol. 51, No. 2, April 1983, pp. 16-21. The more important errors should be corrected as follows:

1. Page 16, quoted portion of 5th paragraph under "Tidelands" should read as follows:

> "lying within or in front of the corporate limits of any city, or within one mile thereof upon either side and between the line of ordinary high tide and the inner harbor line, and within two miles of the corporate limits on either side and the line of extreme low tide."[22]

2. Page 17, 1st paragraph under "Upland/Tideland Boundary," 3d line: change "or" to "of"

3. Page 17, 2d paragraph under "Upland/Tideland Boundary," 6th line: delete "the" after "for"

4. Page 17, last paragraph under "Upland/Tideland Boundary," insert paragraph that was omitted:

It appears that, as a practical matter, the *Borax* "mean high tide" rule is now being recognized as the property boundary. For example, a 1971 Washington appellate court decision follows that rule, citing *Borax* and disregarding the vegetation line.[32] However, for regulatory purposes, the vegetation line concept still has some application.[33]

5. Page 18, 8th paragraph under "Legal Effect of Physical Changes in the Location of the Shoreline," 4th line, change "held" to "said"

6. Page 19, note 21, 5th line: change last "of" to "or"

7. Page 20, note 58, 1st line: change "'The" to "'This"

8. Page 20, note 58, 3rd line: change "republic" to "public"

PUBLIC ACCESS RIGHTS

Due to the colonial grants of tidelands and other acquisitions, municipalities own some of Long Island's most attractive beaches. During the past 25 years, as population and maintenance costs both increased, many of these cities and towns attempted to restrict use of these municipally owned beaches to local residents.[60] One such attempt was litigated in *Gewirtz* v. *City of Long Beach*.[61]

The city had acquired the beachfront property in 1935-37. Federal funds had been used to stabilize the beach and to improve it for recreational use. A city ordinance created a beach park but did not limit the class of persons who could use it. Members of the general public enjoyed the beach park until 1970, when the city passed a new ordinance restricting such use to Long Beach residents and their guests.[62]

The court found that the city had expressly and irrevocably dedicated the beach to the general public's use, and that consequently the restrictive 1970 ordinance was void.[63] The *Gewirtz* decision, based on an express intent to dedicate,[64] thus differs from the California cases on implied dedication of beaches and beach accessways.[65]

The New York court's legal approach also contrasts with that of the New Jersey Supreme Court, which held that the public trust doctrine prohibited a municipality from imposing higher fees on nonresidents than on residents.[66] But the practical effect of the two courts' decisions is similar: opening municipally owned beaches to more people.

While *Gerwitz* may have encouraged other cities and towns to lower the barriers to nonresidents' use of locally owned beaches,[67] public access along privately held portions of New York's shoreline remains limited.

In one case, for example, plaintiffs sought to open a private beach by invoking the legal theory of custom and usage. Despite evidence that the public had long used the area to gain access to Long Island Sound for

bathing and boating, the court rejected plaintiffs' attempt.[68] The case contrasts sharply with the Oregon Supreme Court opinion holding, under a modified form of the ancient common-law doctrine of custom, that the public may use the dry-sand portion of that state's Pacific shore.[69]

Another approach toward increasing public access —a requirement that a subdivider dedicate a beach to the public as a condition for subdivision approval — was turned down by a New York court when the developer established that allowing such access would appreciably lower the value of his property.[70]

Encouraging public coastal access is a goal of the state's legislative and executive branches. The Waterfront Revitalization and Coastal Resources Act,[71] passed in 1981, declares that it is necessary "[t]o achieve a balance between economic development and preservation that will permit the beneficial use of coastal resources while preventing . . . diminution of . . . public access to the waterfront. . . ." and "[t]o encourage and facilitate public access for recreational purposes."[72] Local governments' waterfront revitalization programs under this act are required to provide for public access.[73]

The newly approved New York Coastal Management Program calls for protecting, maintaining and increasing "the level and types of access to public water-related recreation resources and facilities" and maintaining access to the publicly owned tidelands.[74]

PRIVATE LITTORAL RIGHTS

New York's private upland owners enjoy the usual right of access to navigable waters adjoining their property. To facilitate their access, they may erect and maintain permanent structures extending over the tidelands even though the public's passage along the shore is thereby impaired to some extent.[75]

The littoral owners' right to construct floats, piers and wharves has been judicially upheld.[76] However, the courts have required that this right be reasonably exercised.[77]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The state's Department of Environmental Conservation may lease state-owned tide and submerged lands (except state park lands) for the exploration and production of oil and gas.[78] The prior approval of the Office of General Services, which administers state lands not vested in another state agency, is required before such leases may be made.[79] The commissioner of general services is authorized to enter into other types of leases of state-owned subaqueous lands, subject to limitations for lands bordering on Long Island.[80]

B. Regulatory Functions

In 1973 the New York Legislature passed the Tidal Wetlands Act,[81] a measure that a legal commentator calls "far short of a complete regulation of the entire coastal zone" but "somewhat more comprehensive" than the traditional dredge-and-fill laws.[82] The act, which defines "tidal wetlands" in terms of characteristic vegetation,[83] is intended to preserve and protect those lands covered at some time by the tides and certain designated adjacent lands.[84] Following enactment of the law, the state inventoried the tidal wetlands to determine which areas should be regulated. During the inventory, there was a moratorium on alterations to these lands.[85]

To implement the Tidal Wetlands Act, the state commissioner of environmental conservation promulgated land-use regulations in 1977.[86] In general, regulated activities within the boundaries of the designated tidal wetlands cannot be conducted without a permit issued by the commissioner. Among regulated activities:

> "[A]ny form of draining, dredging, excavation, dumping, filling, construction, pollutant discharge or any other activity which directly or indirectly impairs the tidal wetland's ability to provide [fish and wildlife] habitat."[87]

The 1981 Coastal Erosion Hazards Act[88] is a comprehensive regulatory scheme applicable to designated coastal erosion hazard areas. The law provides for regulation at the local, county and state levels in certain areas, such as those "determined as likely to be subject to erosion during a forty-year period."[89]

Another law passed in 1981, the Waterfront Revitalization and Coastal Resources Act,[90] provides the legal authority for establishment of a comprehensive, coordinated coastal management program. This act declares the public policy of the state in the coastal area and encourages local governments to develop optional waterfront revitalization progams.[91] These local programs help implement the state's coastal goals "through use of existing broad powers such as those covering zoning and site plan review."[92]

The Waterfront Revitalization and Coastal Resources Act, the Tidal Wetlands Act and the Coastal Erosion Hazards Act are only three of numerous state laws embraced within the New York Coastal Management Program.[93] Approved by the Federal Government in September 1982, the program articulates 44 wide-ranging coastal policies with which all state agencies must be consistent. The New York Department of State is responsible for administering the program and coordinating its implementation by other agencies.[94]

ACKNOWLEDGMENTS

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REFERENCES

1. Moss. *The Lost Waterfront of New York*. 6 Coastal Zone Management J. 167, 168 (1979).
2. This charter was one of a number issued by the Dutch and English colonial authorities for the benefit of municipalities. Dutch settlement of the area now within the State of New York began in 1624 with Fort Nassau and in 1626 on Manhattan Island. The Dutch surrendered to the English in 1664; in 1673 the Dutch

recaptured New York, but the English resumed control the next year. 1 R. Powell, *The Law of Real Property* ¶ 59 (Rev. ed. 1981).

Among the earliest colonial patents to a municipality was the Dutch governor's 1644 grant to the townsmen of Hempstead on Long Island, which included underwater lands; in 1685 the English governor confirmed the grant. These patents were the principal sources of title to the Town of North Hempstead. Comment, *Colonial Patents and Open Beaches*, 2 Hofstra L. Rev. 301, 305-307 (1974).

In 1686 Thomas Dongan, the English colonial governor, issued the City of New York a charter which granted to the city the shore around Manhattan Island between the high-water and low-water marks. In 1730 a second royal charter confirmed the original charter and granted the city additional tide-covered lands at the southern end of Manhattan. The grants to New York City were ratified by the colonial legislature in 1732 and by the people in the first New York State Constitution in 1777. Similar colonial grants of tidelands were made to various Long Island towns and municipalities, *e.g.*, Brookhaven, East Hampton, Northport, Oyster Bay, Southampton. See Tillinghast, *Tide-Flowed Lands and Riparian Rights in the United States*, 18 Harv. L. Rev. 341, 351-352(1905). For a somewhat different view of the effect of these colonial charters, see Parsons, *Public and Private Rights in the Foreshore*, 22 Colum. L. Rev. 706, 722-725 (1922).

3. *State of New York Coastal Management Program and Final Environmental Impact Statement* [hereinafter cited as NYCMP] II-2-7 (August 1982). The program was prepared under the Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq*. See also Moss, *supra*, note 1, 6 Coastal Zone Management J. at 167-168, 173-183, for a critical analysis of the management of the New York City waterfront.
4. The Coastal Management Program sets forth 44 coastal policies. Policy 1 is to "[r]estore, revitalize, and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational and other compatible uses." NYCMP, *supra*, note 3, at II-6-5.
5. See, *e.g.*, Policies 3 (port expansion), 6 (expediting permit procedures), 10 (expansion of commercial fishing industry) and 27 and 29 (coastal energy resource development). *Id.* at II-6-17, II-6-31, II-6-51, II-6-145, II-6-155.
6. See Policies 19, 21 and 22. *Id.* at II-6-89, II-6-99, II-6-107, II-6-115.
7. *Id.* at II-2-1. Since this series has focused on the law of the coast along the open sea and in estuarine areas, this article does not discuss the law with respect to the Great Lakes-St. Lawrence River portion of New York's coastal zone.
8. *Ibid.*
9. *Id.* at II-2-8.
10. *Id.* at II-3-6.
11. *Id.* at II-3-5-6.
12. This classification is used for convenience and consistency with other articles in this series. However, the term *foreshore* is frequently used in New York case law and legal writings to refer to the lands between the lines of high and low tide, *i.e.*, tidelands.
13. See "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
14. Deveney, *Title, Jus Publicum, and the Public Trust: An Historical Analysis*, 1 Sea Grant L.J. 13, 58 (1976); Tillinghast, *supra*, note 2, 18 Harv. L. Rev. at 351-352; Parsons, *supra*, note 2, 22 Colum. L. Rev. at 722-725.
15. Comment, *supra*, note 2, 2 Hofstra L. Rev. at 313-315.
16. For a brief discussion of the grants in Massachusetts pursuant to the colonial ordinance of 1647, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-14.
17. Taylor, *The Seashore and the People*, 10 Cornell L. Q. 303, 310 (1925).
18. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842). See also Taylor, *supra*, note 17, 10 Cornell L.Q. at 310.
19. *Id.* at 316-319.
20. See, *e.g.*, *People* v. *Steeplechase Park Co.*, 218 N.Y. 459, 113 N.E. 521 (1916), which involved a state grant to part of the beach that the public previously had used. The public's right of passage was prevented by piers erected by the new private owner. The court held that the public could be excluded because the state had not restricted the grantee's title. See additional discussion under "New York's Public Trust Doctrine," *infra*.
21. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq*.
22. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975). The decision was based on *United States* v. *Texas*, 339 U.S. 707 (1950); *United States* v. *Louisiana*, 339 U.S. 699 (1950); *United States* v. *California*, 332 U.S. 19 (1947).
23. See, *e.g.*, *Tiffany* v. *Oyster Bay*, 209 N.Y. 1, 102 N.E. 585 (1913). *Fulton Light, Heat & Power Co.*, v. *State*, 200 N.Y. 400, 94 N.E. 199 (1911).
24. See, *e.g.*, *Sage* v. *Mayor*, 154, N.Y. 61, 47 N.E. 1096 (1897); *Dunham* v. *Townshend*, 118 N.Y. 218, 23 N.E. 367 (1890); *State* v. *Bishop*, 46 App. Div. 2d 654, 359 N.Y.S. 2d 817 (2d Dep't 1974); *Board of Educ.* v. *Nyquist*, 51 Misc. 2d 902, 274 N.Y.S. 2d 229 (Sup. Ct. Albany County 1966), *aff'd*, 28 App. Div. 2d 936, 281 N.Y.S. 2d 486 (3d Dep't 1967).
25. Humbach & Gale, *Tidal Title and the Boundaries of the Bay: The Case of the Submerged "High Water" Mark*, 4 Fordham Urb. L.J. 91, 103 n.62 (1975).
26. *Dolphin Lane Assoc.* v. *Town of Southampton*, 37 N.Y. 2d 292, 333 N.E. 2d 358, 372 N.Y.S. 2d 52 (1975).
27. *Id.* at 297, 333 N.E. 2d at 360, 372 N.Y.S. 2d at 54. This aspect of the decision has been criticized: "It may be seriously argued that this practice of surveyors was followed only in cases where the survey was for purposes *other than* locating the boundary at the shore . . . . Historically, both surveyors and the court of appeals recognized the distinction between the high water line and the edge of the marshlands, and that the former was controlling in boundary disputes . . . . It does not seem reasonable to assume that there was a discrepancy between surveying practice and a clear line of decisions, going back to at least 1890, holding that the line of high water is the boundary . . . ." Humbach & Gale, *supra*, note 25, 4 Fordham Urb. L.J. at 112 n. 104 (emphasis in original).
28. Title was held for the town by the Trustees of the Freeholders and the Commonality of the Town of Southampton. The town's title is traceable to the grant by the king of England to the duke of York and the royal charters issued under his colonial government; the first chapter to the inhabitants of what is now the town was issued in 1676. *Id.* at 104 n. 65, 105-106 n. 76.
29. The lower court opinion is reported at 72 Misc. 2d 868, 339 N.Y.S. 2d 966 (Sup. Ct. Suffolk County 1971), *aff'd*, 43 App. Div. 2d 727, 351 N.Y.S. 2d 364 (2d Dep't 1973).
30. "One type, *Spartina alterniflora* (cordgrass), thrives naturally only if inundated twice daily by the tides. The other type of grass, *Spartina patens* (salt hay), thrives only in areas beyond the reach of the twice-daily tidal inundations. . . . The [trial] court did not hold that these plants fixed the boundary as a matter of law but only that their growth was 'indicative of the tidal flow for all the months of the year, over the course of several years.' Accordingly, the line was to be in the intermediate strip between the primary growth areas of the two types of grass." Humbach & Gale, *supra*, note 25, 4 Fordham Urb. L.J. at 107 (footnotes omitted).
31. 37 N.Y. 2d at 296, 333 N.E. 2d at 359, 372 N.Y.S. 2d at 54.
32. Critics of the decision assert that the Court of Appeals "has set the high water line on the bottom of the bay." Humbach & Gale, *supra*, note 25, 4 Fordham Urb. L.J. at 108 (footnote omitted). They claim that, "[b]y locating the line at the seaward edge of the *Spartina alterniflora*, a plant which needs tidal inundation twice-daily," the court "has probably in effect fixed the 'high water line' at the *low* water line, since *Spartina alterniflora* is apparently not a water plant living in areas *continuously* under water." *Id.* at 108 and n. 84 (emphasis in original).
33. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). Under this decision, which is followed when federal law controls and is accepted as the rule expressly or impliedly by a number of states, the mean of *all* the high waters over an 18.6-year tidal cycle is used. For a brief discussion of *Borax*, see *Shore and Beach*, Vol. 48, No. 54, October 1980, pp. 17-18.
34. 37 N.Y. 2d at 295-296, 333 N.E. 2d at 359-360, 372 N.Y.S. 2d at 53-54.
35. *Id.* at 296-297, 333 N.E. 2d at 359-360, 372 N.Y.S. 2d at 54-55.
36. Humbach & Gale, *supra*, note 25, 4 Fordham Urb. L.J. at 126-128. For an example of a statutory clarification of the problems of determining the legal boundary, see the discussion of the Florida Coastal Boundary Mapping Act of 1974 in *Shore and Beach*, Vol. 49, No. 3, July 1981, p. 14.
37. See, *e.g.*, *Matter of City of Buffalo*, 206 N.Y. 319, 99 N.E. 850 (1912); *Laukins* v. *City of New York*, 272 App. Div. 920, 71 N.Y.S. 2d 112 (2d Dep't 1947).
38. *State* v. *Bishop*, *supra*, 46 App. Div. 2d 654, 359 N.Y.S. 2d 817.
39. *People* v. *Steeplechase Park Co.*, *supra*, 82 Misc. 247, 143 N.Y.S. 503; *Mulry* v. *Norton*, 100 N.Y. 424, 3 N.E. 581 (1885).
40. Generally, submergence is considered to mean the *gradual* disap-

pearance of land under water and the formation of a body of water over it. See "Shoreline Changes: A Legal Lexicon," *Shore and Beach*, Vol. 50, No. 3, July 1982, p. 18.

41. *Trustees of Freeholders* v. *Heilner*, 84 Misc. 2d 318, 331, 375 N.Y.S 2d 761, 773 (Sup. Ct. Suffolk County 1975).
42. NYCMP, *supra*, note 3, at II-5-13, II-5-21 n. 7.
43. *Id.* at II-5-13, II-5-21 n. 6.
44. N.Y. Environ. Conserv. Law § 34-0101 *et seq.* (Supp. 1982).
45. NYCMP, *supra*, note 3, at II-5-11-20, II-6-55-87.
46. *Id.* at II-6-55, II-6-63, II-6-75.
47. 144 N.Y. 395, 39 N.E. 400 (1895). The New York Court of Appeals' opinion followed the rationale of the U.S. Supreme Court's landmark decision in *Illinois Central Railroad* v. *Illinois*, 196 U.S. 387 (1892).
48. Deveney, *supra*, note 14, 1 Sea Grant L.J. at 63-64 (footnotes omitted).
49. 144 N.Y. at 404, 39 N.E. at 403.
50. *Id.* at 405-406, 39 N.E. at 402. For detailed discussions of the *Coxe* decision, see Deveney, *supra*, note 14, 1 Sea Grant L.J. at 63-66; Berland *Toward the True Meaning of the Public Trust*, 1 Sea Grant L.J. 83, 126-129 (1976). See *id.* at 129-131 for a discussion of another decision approving a subsequent legislative repudiation of a grant, *Long Sault Development Co* v. *Kennedy*, 212 N.Y. 1, 105 N.E. 849 (1914) (St. Lawrence River).
51. *Marba Sea Bay Corp.* v. *Clinton Street Realty Corp.*, 272 N.Y. 292, 5 N.E. 2d 824 (1936).
52. *Id.* at 296, 5 N.E. 2d at 825.
53. Berland, *supra*, note 50, 1 Sea Grant L.J. at 134.
54. 218 N.Y. 459, 113 N.E. 521
55. For detailed discussions of the *Steeplechase* decision, see Deveney, *supra*, note 14, 1 Sea Grant L.J. at 68-71; Berland, *supra*, note 50, 1 Sea Grant L.J. at 131-132.
56. One legal commentator states: "In general, the courts have held that such [colonial] grants conveyed title to be held by the towns in their political capacity for the public good, and that such title 'passed' the *jus publicum* [public trust rights] to the extent that the towns could exclude the general public from the beaches and grant exclusive rights to shellfish and stake-net fishing in the waters, but could not interfere with free fishing or navigation by the general public." Deveney, *supra*, note 14, 1 Sea Grant L.J. at 58 (citations omitted). See also Humbach & Gale, *supra*, note 25, 4 Fordham Urb. L.J. at 96-97 n. 34; Comment, *supra*, note 2, 2 Hofstra L. Rev. at 319-322; Comment, *Can New York's Tidal Wetlands Be Saved? A Constitutional and Common Law Solution*, 39 Albany L. Rev. 451, 479-482 (1975).
57. See "Public Access Rights," *infra*.
58. See, *e.g.*, Comment, *supra*, note 2, 2 Hofstra L. Rev. at 316-318; Comment, *Non-Resident Restrictions in Municipally Owned Beaches: Approaches to the Problem*, 10 Colum. J.L. & Soc. Prob. 177, 201, 206 (1974).
59. *Tucci* v. *Salzhauer*, 69 Misc. 2d 226, 234, 329, N.Y.S. 2d 825, 834 (Sup. Ct. Nassau County 1972).
60. Note, *Public Access to Beaches: Common Law Doctrine and Constitutional Challenges*, 48 N.Y.U.L. Rev. 369, 379-380 n. 83 (1973).
61. 69 Misc. 2d 763, 330 N.Y.S. 2d 495 (Sup. Ct. Nassau County 1972), *aff'd*, 45 App. Div. 2d 841, 358 N.Y.S. 2d 957 (2d Dep't 1974).
62. 69 Misc. 2d at 763-769, 330 N.Y.S. 2d at 499-503.
63. *Id.* at 773-774, 780, 330 N.Y.S. 2d at 508, 514.
64. For detailed discussions of the *Gewirtz* decision, see Comment, *supra*, note 2, 2 Hofstra L. Rev. at 302, 329-332; Note, *supra*, note 60, 48 N.Y.U.L. Rev. at 377-380, 387-389; Comment, *supra*, note 58, 10 Colum. J.L. & Soc. Prob. at 178 n. 8, 222-224.
65. For a brief discussion of *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal. 3d 29, 465 P.2d 50, 84 Cal. Rptr. 162 (1970), see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23.
66. For a brief discussion of *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*, 61 N.J. 296, 294 A. 2d 47 (1972), see *Shore and Beach*, Vol. 50, No. 2, April 1982, p. 11.
67. Comment, *supra*, note 58, 10 Colum. J.L. & Soc. Prob. at 223. Interestingly, the state's highest court invalidated a village's zoning ordinance that would have eliminated public beaches in order to benefit its residents. *Incorporated Village of Lloyd Harbor* v. *Town of Huntington*, 1 N.Y. 2d 182, 149 N.E. 2d 851, 173 N.Y.S. 2d 553 (1958). In another case, the court held that beaches and parks are matters of statewide concern, transcending purely interests. *Atlantic Beach Property Owners Ass'n* v. *Town of Hempstead*, 3 N.Y. 2d 434, 144 N.E. 2d 409, 165 N.Y.S. 2d 737 (1957). See Note, *supra*, note 60, 48 N.Y.U.L. Rev. at 388.
68. *Gillies* v. *Orienta Beach Club*, 159 Misc. 675, 289 N.Y.S. 733 (Sup. Ct. Westchester County 1935), *aff'd*, 248 App. Div. 623, 288 N.Y.S. 136 (2d Dep't 1936).
69. For a brief discussion of *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P. 2d 671 (1969), see *Shore and Beach*, Vol. 50, No. 2, July 1982, pp. 16-17, 19-20.
70. *East Neck Estates, Ltd.* v. *Luchsinger*, 61 Misc. 2d 619, 305 N.Y.S. 2d 922 (Sup. Ct. Suffolk County 1969).
71. N.Y. Exec. Law § 910 *et seq.*
72. *Id.* § 912.
73. *Id.* § 915.
74. *NYCMP*, *supra*, note 3, at II-6-89-106. See also *id.* at II-5-23-25, app. A-1-3 (administrative rules adopted to implement the Waterfront Revitalization and Coastal Resources Act).
75. See, *e.g.*, *Barnes* v. *Midland R.R. Terminal Co.*, 193 N.Y. 378, 386, 85 N.E. 1093, 1096 (1908).
76. See, *e.g.*, *Hinkley* v. *State of New York*, 234 N.Y. 309, 317-318, 137 N.E. 599, 601-602 (1922); *Town of Brookhaven* v. *Smith*, 188 N.Y. 74, 80-82, 80 N.E. 665, 667-668 (1907); *Huguenot Yacht Club* v. *Lion*, 43 Misc. 2d 141, 250 N.Y.S. 2d 548, 554-556 (Sup. Ct. Westchester County 1964). See also N.Y. Environ. Conserv. Law § 15-0503(4)(d) (Supp. 1982) (permit not required for small docks).
77. *Barnes* v. *Midland R.R. Terminal Co.*, *supra*, 193 N.Y. 378, 85 N.E. 1093. See also Comment, *supra*, note 58, 10 Colum. J.L. & Soc. Prob. at 202-204. When state permits for dock construction are required, the Department of Environmental Conservation, in determining whether to grant a permit, must "ascertain the probable effect on the health, safety and welfare of the people . . . and the effect on the natural resources of the state likely to result from such construction . . . ." N.Y. Environ. Conserv. Law § 15-0503(3)(a) (Supp. 1982).
78. N.Y. Environ. Conserv. Law § 23-1101(1)(a)(b) (Supp. 1982).
79. *Id.* § 23-1101(2)(d) (Supp. 1982); N.Y. Pub. Lands Law § 3(1) (Supp. 1982).
80. Pub. Lands Law § 3(2)(5) (Supp. 1982).
81. N.Y. Environ. Conserv. Law § 25-0101 *et seq.* (Supp. 1982).
82. Commment, *supra*, note 56, 39 Albany L. Rev. at 457.
83. N.Y. Environ. Conserv. Law § 25-0103(1)(b) (Supp. 1982).
84. The law applies to banks, bogs, salt marsh, swamps, meadows, flats or "other low lands subject to tidal action." *Id.* § 25-0103(1)(a) (Supp. 1982). See also *id.* §§ 25-0102, 25-0202 (Supp. 1982).
85. *Id.* §§ 25-0201, 25-0202.
86. N.Y.C.R.R., pt. 661. See NYCMP, *supra*, note 3, app. E, 66-83.
87. *Id.* at II-6-39.
88. N.Y. Environ. Conserv. Law § 34-0101 *et seq.* (Supp. 1982).
89. *Id.* § 34-0103(3)(a) (Supp. 1982).
90. N.Y. Exec. Law § 910 *et seq.*
91. *Id.* §§ 910, 912-914.
92. NYCMP, *supra*, note 3, at II-1-4.
93. For a list of the statutes to be relied upon in implementing the program, see *id.* at II-4-14-15.
94. *Id.* at II-4-3.

The Law of the Coast in a Clamshell*

Part XIII: The Hawaii Approach

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Since prehistoric days, when the tips of volcanoes pierced the Pacific Ocean's surface and formed the first links in the chain, the Hawaiian Islands have been wedded to the sea. Almost half of the State of Hawaii's land area is within 5 miles of the ocean, and no point is more than 29 miles from the shoreline.[1]

Extending 1,700 miles across the Pacific, the Aloha State consists of eight major islands—the highest part of a largely submerged volcanic mountain range—and 116 minor islands.[2] The state's 750-mile coast[3] encompasses such diverse areas as the highly urbanized Waikiki Beach (Fig. 1) on Oahu and the precipitous 1,000-foot-high Na Pali Cliffs on Kauai.

When the Polynesian ancestors of the Hawaiian people settled the Islands between 500 and 750 A.D., they lived along the coast.[4] And most of today's throngs of tourists are housed in resorts, hotels and condominiums near the ocean.[5]

The contemporary law of the coast in Hawaii reflects the Islands' close ties to the sea. The state's Supreme Court looked back to ancient Hawaiian custom in deciding where to fix coastal property boundaries, thereby expanding shore areas open to the public.[6] State officials are also looking ahead, studying the legal issues involved in ocean thermal energy conversion (OTEC), or the use of the temperature differences between warm and cold ocean water to produce energy.[7]

HISTORICAL BACKGROUND

Hawaii's land laws are unique among the states because "they are based on ancient [Hawaiian] tradition, custom, practice and usage," according to the state's Supreme Court.[8] Although Hawaii adopted the English common law on Nov. 25, 1892, its adoption was subject to earlier Hawaiian usage.[9] Thus, in examining the contemporary law of the coast—especially with respect to title to and boundaries of littoral lands, public beach access and private fishing rights—an understanding of some key events in Hawaii's colorful history is essential.[10]

When Capt. James Cook "discovered" the Hawaiian Islands in 1778, they were a number of small kingdoms. King Kamehameha I unified the Islands and founded the Kingdom of Hawaii in 1810. The king held title to all land, with the warrior chiefs having use of various areas at his discretion. Until the mid-19th century, the land tenure system was essentially feudal. "The basic unit of Hawaiian property was the *ahupuaa*, which usually ran from the mountains to the sea, entitling the chief and his people to obtain fish from the ocean and fuel, canoe timber, and birds from the mountains."[11]

With the influx of American missionaries and other foreigners, pressures mounted to change the ancient Hawaiian system of landholding.[12] In 1845 a Board of Land Commissioners to Quiet Land Titles—commonly known as the Land Commission—was created to investigate and confirm private individuals' claims of rights in lands.[13] "Its decisions, subject only to appeal to the Hawaii Supreme Court, were to be based on existing law of the kingdom, including 'native usages in regard to landed tenures.'"[14]

However, "[t]he Westerner-dominated [Land] Commission perceived its goal to be a total defeudalization and partition of undivided interests" in the lands.[15] "Under the traditional land system, . . . holdings of the king, chiefs and commoners were intertwined and undivided."[16] In 1848 King Kamehameha III divided his private lands from the interests of 245 chiefs and *konohiki* in the Great *Mahele* (Division).[17] "The transformation to the modern Hawaiian land system was [subsequently] completed by creating formalized mechanisms for the sale of government lands and by allowing aliens to own land. . . . By 1852, thousands of acres of prime Hawaiian land were in the hands of foreigners."[18]

The monarchy was overthrown in 1893, a year after Hawaii's conditional adoption of the common law. In 1894 the "provisional government . . . established the Republic of Hawaii, which lasted until annexation [to the United States] in 1898."[19] By this time, Westerners,

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This is the 13th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Hawaii concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the Office of the Attorney General, State of California, or any other agency of the State of California. *© 1983 by Peter H. F. Graber. The author also asserts copyright protection for the first 12 articles in the series.*

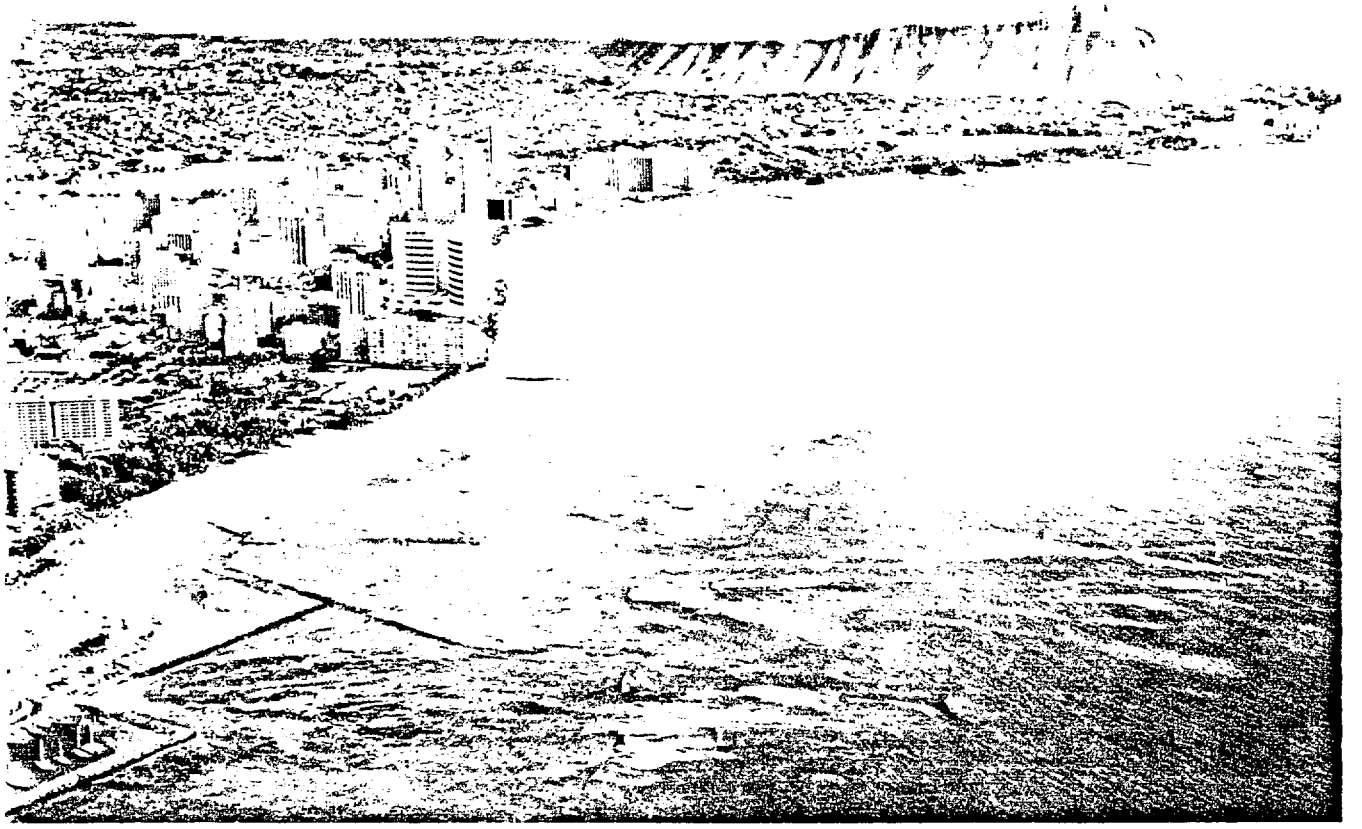

Fig. 1. High-rise hotels and condominiums overlook famed Waikiki Beach in Honolulu. The beach stretches from Ala Wai Boat Harbor to Diamond Head. Kapiolani Park is on the right. (Hawaii Visitors Bureau photo.)

who made up only 9 percent of the Islands' population, owned 67 percent of the taxable lands.[20] Until achieving statehood in 1959, Hawaii was administered as a territory of the United States.[21]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Hawaii's coastal zone, as defined in the state's Coastal Zone Management Program, includes most of the populated and developed parts of the Islands, encompassing all land areas except for state forest reserves and federally owned or administered lands.[22] However, the most intensive regulation of lands within the zone takes place in the shoreline special management areas (SMAs), the inland limits of which the counties were required to amend under the Hawaii CZM Act of 1977.[23]

The coastal zone extends seaward to the outer limits of the United States territorial sea, as provided in the federal Coastal Zone Management Act of 1972.[24] As discussed below, however, the State of Hawaii has asserted jurisdiction over the archipelagic or channel waters between its islands. Consequently, the Hawaii CZM Program notes that the state is not relinquishing or waiving "its rights, authority, or claims, present and future, over those waters within the State's jurisdiction that exist outside the seaward boundary of the Hawaii CZM Program area."[25]

For convenience, lands within the Hawaii coastal zone may be classified as uplands, tidelands and submerged lands.[26]

A. Uplands

Most uplands within the coastal zone are privately owned, although federal,[27] state and local governmental entities have title to some prime property along the shoreline. A recent claim by the City and County of Honolulu that private parties could not own an offshore island was rejected. The Hawaii Supreme Court held that King Kamehameha III had the power in 1850 to convey Mokoli'i Island to the owners' predecessors.[28]

Use of privately owned uplands adjoining the shoreline is subject to setback requirements and other strict regulatory controls.[29]

B. Tidelands

The Hawaii Coastal Zone Management Program flatly asserts that the state "owns all shoreline or beach areas" landward "to the highest reach of the waves, as evidenced by the vegetation or debris line, whichever is higher."[30] But early Hawaiian case law states that during the monarchy the king had the power to convey lands down to the low-water mark into private ownership,[31] suggesting that some tidelands may be privately held.

When admitted to the Union Aug. 21, 1959, the State of Hawaii succeeded the territorial government as owner of all publicly held tidelands.[32] Hawaii was admitted on an equal footing with the other states,[33] and thus has the same jurisdiction and sovereignty over its tidelands as the original states.

C. Submerged Lands

Under the Admission Act and the Submerged Lands Act,[34] Hawaii has title to submerged lands within a 3-geographical-mile belt around each of its islands.

Since the late 1970s the state has asserted an archipelagic claim to a far vaster area. This "claim is based on the principle that all the Hawaiian Islands should be considered legally a single entity, and therefore the channel waters between the islands should fall within Hawaii's territorial jurisdiction."[35]

The Hawaii State Constitution was amended in 1978 to assert state jurisdiction over the archipelagic waters:

> ". . . The State shall have the power to manage and control the marine, seabed and other resources within the boundaries of the State, *including the archipelagic waters of the State*, and reserves to itself all such rights outside state boundaries not specifically limited by federal or international law. . . ."[36]

To include those archipelagic waters within its boundaries, the Hawaii Constitution was amended in 1978 to provide:

> ". . . The State of Hawaii shall consist of all the islands, *together with* their appurtenant reefs and territorial and *archipelagic waters*, included in the Territory of Hawaii on the date of the enactment of the Admission Act, . . ."[37]

Therefore, if the state's "claim cannot be proven as of 1959, the Constitution makes no claim to archipelagic waters at all."[38]

For Hawaii to prevail in its claim to archipelagic waters, it must overcome a 1965 decision of the U.S. Court of Appeals for the Ninth Circuit. In *Island Airlines, Inc.* v. *C.A.B.*,[39] that tribunal affirmed a lower federal court's holding that the state's jurisdiction did not embrace the channels between the islands. The lower court had concluded that these channel waters were international waters.

The State of Hawaii was not a party to the *Island Airlines* litigation,[40] and has argued that it is not precluded by that decision from asserting its archipelagic waters claim.[41] The state's claim remains unresolved.[42]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

It is generally recognized that the legal boundary dividing Hawaiian private owners' uplands from state-owned tidelands is the high-water mark.[43] But many different terms have been used, both in the Hawaiian language and in English, to describe the seaward limits of private lands in Land Commission awards, royal patents and deeds.[44] And recent conflicting decisions by state and federal courts demonstrate the difficulties of actually locating the legal boundary on the ground.

In re Ashford,[45] a 1968 Hawaii Supreme Court case, involved land originally included in two royal patents issued in 1866 in which the *makai* (seaward) boundaries were described as running *ma ke kai* (along the sea). The court defined that Hawaiian term as meaning "along the upper reaches of the wash of waves [at ordinary high tide], usually evidenced by the edge of vegetation or by the line of debris left by the wash of waves."[46]

To support its views on how the boundary should be defined and located, the court's majority stressed that "ancient tradition, custom, practice and usage" are the bases for Hawaii's land laws.[47] Consequently, it is permissible under the *Ashford* decision to introduce "reputation evidence" about the location of the boundary through testimony by *kamaaina* witnesses, *i.e.*, persons familiar from childhood with a locality or "specially taught and made repositories" of knowledge passed from generation to generation about ancient Hawaiian custom.[48] The majority concluded that the trial court had erred in finding that the boundary is the intersection of the tidal datum of mean high water with the shore,[49] a line more favorable to the upland owners than to the state.

In a lengthy dissent, Justice Marumoto warned that the *Ashford* decision would have a far-reaching future impact.[50] He argued that the majority opinion was inconsistent with earlier Hawaii case law and governmental survey practice.[51] He also chastized the state for "asking this court . . . to declare as *the law* for the determination of the seaward boundaries of private lands . . . a practice primitive in concept and haphazard in application and result. . . ."[52]

Five years later, the Hawaii Supreme Court refined and applied the *Ashford* rule in *County of Hawaii* v. *Sotomura*.[53] This case arose from the county's condemnation of a park site at Kalapana Black Sand Beach (Fig. 2), a popular tourist attraction and surfing spot on the Big Island.

Sotomura involved an unusual fact situation; there had been pre-*Ashford* land court proceedings in which the seaward boundary of the privately owned parcel had been located along the *limu* (seaweed) line,[54] but the shoreline had eroded before the condemnation lawsuit was brought. Among the issues: (1) whether the erosion would have any legal effect on the boundary (the state Supreme Court held that it did, a point discussed below), and (2) if so, the proper method of locating the new boundary.

The high court held that the trial judge had correctly ruled that the new location of the boundary, as mandated by *Ashford*, was along "the upper reaches of the wash of the waves,"[55] but had erred in locating the boundary along the debris line rather than the vegetation line.[56] The court stated:

> "We hold as a matter of law that where the wash of the waves is marked by both a debris line and a vegetation line lying further *mauka* [landward]; the [legal] presumption is that the upper reaches of the wash of the waves over a course of a year lies [*sic*] along *the line marking the edge of vegetation growth*. . . . [W]hile the debris line may change from day to day or from season to season, the vegetation line is a more permanent monument, its growth limited by the year's highest wash of the waves."[57]

In reaching this conclusion, the court said that its *Ashford* decision had been "a judicial recognition of long-standing public use of Hawaii's beaches to an easily recognizable boundary that has ripened into a customary right."[58] One rationale for selecting the most landward of the three lines considered (the *limu* or seaweed line, the debris line and the edge of vegetation): "Public policy, as interpreted by this court, favors extending to public use and ownership as much of Hawaii's shoreline as is reasonably possible."[59]

Subsequent Hawaii Supreme Court cases have cited and followed the *Ashford/Sotomura* boundary rule, declaring that "the true measure of high water mark in this jurisdiction is the upper reaches of the wash of the waves."[60] As a broad proposition, boundaries of real property are determined under state law except where a federal question is involved or there is an overriding federal interest that must be protected.[61] Therefore, the *Ashford/Sotomura* rule generally would appear to be controlling in Hawaii. But the matter remains clouded because of language in a recent federal court decision.[62]

After the state Supreme Court ruled against the property owners in the *Sotomura* case, they sought relief in federal court. In 1978 the United States District Court for Hawaii held that the owners had been denied due process under the 14th Amendment to the U.S. Constitution on several grounds.[63] The federal tribunal also concluded that the state court's "retroactive application of the *Ashford* standards to locate the seaward boundary . . . at the vegetation line, . . . was so radical a departure from prior state law as to constitute a taking of [their] property by the State of Hawaii without just compensation. . . ."[64]

The U.S. District Court sharply criticized the Hawaii court's *Sotomura* decision, asserting that "all relevant precedent," other than *Ashford*, "demonstrated that high water mark was to be determined by reference to the tides and that mean high water . . . was the accepted criterion."[65] The federal court also stated that "[t]he use of mean high water, or the [*limu* or] seaweed line as its substantial equivalent, to locate high water mark on the ground was also in conformance with common law, adopted . . . as the law of Hawaii."[66] Ultimately, however, a lack of evidence during the trial of the *Sotomura* case—and an act of nature—forced the federal court to accept the debris line rather than the *limu* line as the post-accretion boundary of the land in dispute.[67]

B. Legal Effect of Physical Changes in the Location of the Shoreline

In 1889 the Hawaii Supreme Court held that additions to littoral land formed by gradual, imperceptible accretion belong to the upland owner.[68] But 88 years later, in 1977, the court ruled that the state, rather than private littoral owners, should benefit from extensions in the shore caused by sudden lava flows.[69]

When a 1955 volcanic eruption overflowed the Island of Hawaii's shoreline, approximately 7.9 acres of new land were added to a privately held upland parcel. The court found that the state, upon admission to the Union in 1959, had obtained title to the lava extension. It reasoned that, when ceding lands to the United States at the time of annexation, the Republic of Hawaii "had an interest in any lands to be added to the Territory of the Hawaiian Islands, whether through conquest, discovery, or volcanic activity," and that "any lava extension thereafter created should be considered to be among the 'lands and properties . . . ceded to the United States by the Republic. . . .'"[70]

The court was concerned that granting a lava extension to a littoral owner would amount to a windfall:

> ". . . If a one-third acre parcel fronting the ocean is flowed over by lava which adds one to two seaward acres to the parcel, is it equitable that its owner acquire property which is three or six times the size of the preexisting parcel? If a littoral owner is to be thus compensated for lava destruction, should not an upland pasture or farm owner be also compensated with pasture or farm land for the destruction of what had been the chief economic attribute of his parcel? . . .
>
> "Rather than allowing only a few of the many lava victims the windfall of lava extensions, this court believes that equity and sound public policy demand that such land inure to the benefit of all the people of Hawaii, in whose behalf the government acts as trustee. . . ."[71]

The Hawaii Supreme Court, apparently for the first time, was asked to decide on the legal effect of erosion on property boundaries in the previously discussed *Sotomura* case. The court, noting the absence of evidence of Hawaiian custom on the question, resorted to common-law principles and held that the state gains title to eroded land.[72] In another case, the high court held that the state could challenge the location of a shoreline boundary of property registered in the land court when a new survey shows a line further inland and a portion of the property has been submerged by erosion.[73]

Erosion is only one of the coastal hazards in Hawaii; tsunami inundation, subsidence and flooding are among other problems addressed in the state's Coastal Zone Management Program.[74] There have been approximately 40 tsunamis over the past 145 years, with especially severe loss of life and property damage in 1946 and 1960.[75]

HAWAII'S PUBLIC TRUST DOCTRINE

Soon after becoming an American territory, Hawaii adopted the public trust doctrine, the concept that the public has the right to use tidal waters for certain purposes.[76] In 1899 in *King v. Oahu Railway & Land Co.*,[77] the Hawaii Supreme Court followed the reasoning of the U.S. Supreme Court's landmark 1892 *Illinois Central* decision,[78] and held that "[t]he lands under the navigable waters in and around the territory of the Hawaiian Government" are impressed with a trust for the public uses of commerce, navigation and fishing.[79]

The Hawaii Supreme Court applied the public trust doctrine in 1905 to enjoin construction of a seawall on Waikiki Beach's tidelands.[80] The court stated: "Walls and buildings extending seaward beyond high water mark block the right of way and furnish no compensatory advantages to the public for purposes of navigation or fisheries."[81]

Despite these early decisions, however, there have been difficulties in reconciling public rights assured

under the public trust doctrine with private fishing rights that had arisen under ancient Hawaiian custom and usage.

In 1840 King Kamehameha III formally granted the *konohikis* (overseers, land agents or landlords of the *ahupuaa*, or basic land division) certain private rights.[82] The *konohikis* could designate one species of fish within a certain area for their exclusive use or, alternatively, put a taboo on all fishing within the area for a period of time and receive one-third of all fish caught within the fishing grounds.[83] The Hawaii Legislature approved these *konohiki* rights in 1859.[84]

Congress, in the 1900 Hawaii Organic Act,[85] repealed all laws conferring exclusive private fishing rights except for preexisting vested rights. Under the act any claimant to these rights was required to register his claim within two years; the territory was then to condemn and purchase the fisheries that had been registered and adjudicated.[86]

Due to many owners' failure to register their *konohiki* fisheries within the two-year deadline, the Organic Act opened more than half these fisheries to the public.[87] However, in two decisions in 1904 and 1906, the U.S. Supreme Court upheld the validity of preexisting private fishing rights, stressing that Hawaiian usage and law had recognized them as private property.[88] These decisions reversed a Hawaii Supreme Court holding[89] that the Trustees of the Estate of Bernice Pauahi Bishop, the largest private landowner in the Islands, had acquired no vested fishing rights.

More than three decades later, the Bishop Estate attempted to quiet its title to another fishery.[90] In 1940 in *Bishop* v. *Mahiko*, the Hawaii Supreme Court subordinated the *konohiki* fishing rights to the public trust and held that the Bishop Estate's failure to establish its claim to vested rights under the Organic Act constituted a waiver of any right to compensation.[91]

The public trust doctrine has continuing viability in Hawaii. It was relied on by the state Supreme Court in the previously discussed 1973 *Sotomura* boundary decision.[92] And in a 1977 case, also mentioned above, the court held that new land formed by lava flows extending the coastline seaward is held in trust by the state for the people, and recognized recreation as a valid public trust use.[93]

A 1978 addition to the Hawaii Constitution also reflected an application of the public trust doctrine to publicly owned coastal lands and waters:

> ". . . For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.
>
> "All public natural resources are held in trust by the State for the benefit of the people."[94]

PUBLIC ACCESS RIGHTS

Because the uplands adjoining three-quarters of the Islands' sandy beaches are in private ownership,[95] public beach access is a matter of continuing concern to the state, ocean swimmers, surfers and others seeking to use the shore. The Hawaii Coastal Zone Management Program calls for "[p]roviding and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value."[96]

Legislatively, the state has attempted to preserve beach access. The Department of Land and Natural Resources, which administers state-owned lands, is required to lay out and reserve vertical public access between highways and beaches whenever shoreline property is sold, leased or developed by the state.[97] In addition, a statute created a shoreline setback area,[98] thereby encouraging lateral public access along the shore.

Hawaii's appellate courts apparently have not been squarely confronted with beach access issues. But, as previously mentioned, the state's Supreme Court, in the *Sotomura* case, declared that "[p]ublic policy . . . favors extending to public use and ownership as much of Hawaii's shoreline as is reasonably possible."[99]

Some Hawaiian legal writers, alarmed about the pace of development along the shore, have urged utilization of various theories of law to establish and protect public access.[100] Pointing to the Oregon Supreme Court's reliance on a modified form of the common-law doctrine of custom to open that state's beaches to the public,[101] these writers assert that public access should be judicially protected under ancient Hawaiian custom and usage. (By case law, such usage must predate Nov. 25, 1892, when the common law was conditionally adopted in Hawaii.[102]) It is claimed that "the customary right of beach access was a public right which the [Hawaiian] king as sovereign could not convey."[103]

A 1979 U.S. Supreme Court case involved the question of public access to Kuapa Pond, a shallow tidal lagoon on the Island of Oahu separated from Maunalua Bay and the Pacific Ocean by a barrier beach. In converting the fishpond into a marina for private recreational boats, as part of a subdivision, a private developer dredged an 8-foot-deep channel from the pond to the bay. In *Kaiser Aetna* v. *United States*,[104] the court rejected the Federal Government's attempt to require the developer to allow free public access to the marina.

The Federal Government argued that the dredged pond had become a navigable water of the United States, was subject to the federal navigational servitude[105] and thus must be open to the public. A divided Supreme Court, noting that under Hawaiian law Kuapa Pond was private property,[106] held that the government could not require public access to the dredged pond without invoking its eminent domain power and paying just compensation.[107]

PRIVATE LITTORAL RIGHTS

There is a paucity of law on the rights of private littoral owners in Hawaii.[108]

In the lava flow case, discussed above, the state Supreme Court recognized that the protection of the littoral owner's access to the water is a rationale for the usual rule of accretion, but the court denied such access where lava had extended the shoreline. Citing Califor-

nia cases, the court said that ". . . the preservation of [private] littoral access is not sacrosanct and must sometimes defer to other interests and considerations."[109]

An early Hawaii high court case appeared to recognize the right of private upland owners to erect and maintain wharves, landings and piers seaward of the high-water mark, providing such structures did not interfere with navigation.[110] Present statutory law requires that state leases for piers on "public lands, including submerged lands," provide that the public can use such facilities.[111]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

Unlike California, Louisiana and Texas, the State of Hawaii has no known oil, gas or other hydrocarbons in its tide and submerged lands.[112] Consequently, the state has focused on the potential of developing other resources in and beneath the ocean surrounding its islands. In this connection, *Ocean Leasing for Hawaii*, an extensive report prepared for the state's Department of Planning and Economic Development and Department of Land and Natural Resources, was issued in 1981.[113]

The report examines the legal and policy issues concerning state leases for three potential uses of Hawaiian marine waters: (1) commercial mariculture,[114] (2) ocean thermal energy conversion (OTEC)[115] and (3) fish-aggregation devices.[116] The study concludes by recommending various legislative proposals to permit the leasing and licensing of the ocean bottom, the vertical water column and/or the ocean surface.[117]

Hawaii's Constitution empowers the state "to manage and control the marine, seabed and other resources located within [its] boundaries. . . ."[118] Existing statutory law authorizes the Department of Land and Natural Resources to lease state-owned tide and submerged lands, but only for certain uses and subject to various restrictions.[119] As previously noted, leases of public lands adjoining the ocean must reserve public rights of way and access to beaches.[120]

B. Regulatory Functions

Hawaii's coastal zone is subject to extensive regulation by state and county agencies.

For example, uses within conservation districts, established under the pioneering State Land Use Law of 1961,[121] are regulated by the Department of Land and Natural Resources. Conservation districts embrace the tide and submerged lands and beach areas landward to the maximum line of wave action. Conservation district use permits must be obtained by "[a]nyone proposing to use . . . [district] lands or waters for commercial gain."[122]

In 1970 the Shoreline Setback Law[123] "established a restrictive zone 40 feet [landward] from the upper wash

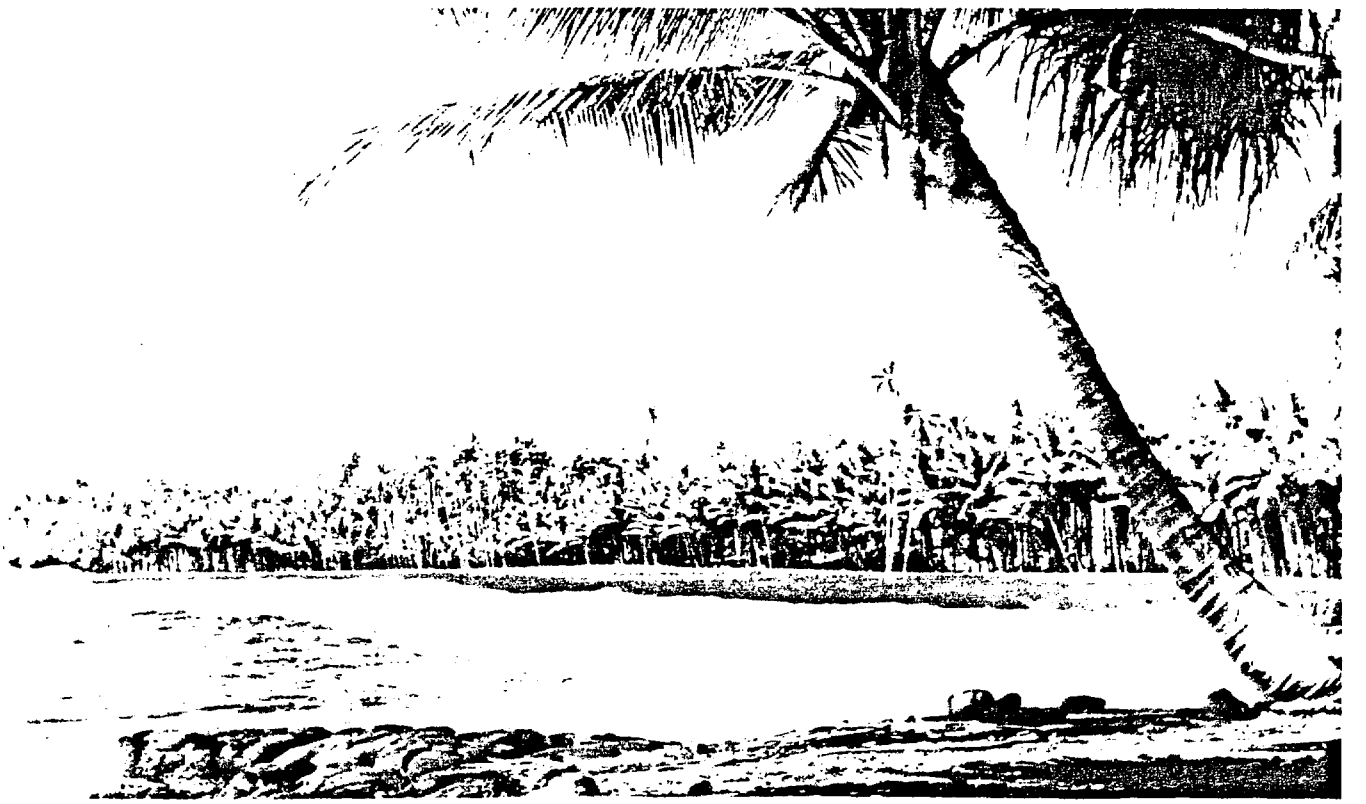

Fig. 2. The Kalapana Black Sand Beach, on the Island of Hawaii, was formed when an ancient lava flow was attacked by the ocean. Shoreline property in the area was the subject of lengthy litigation in state and federal courts over the location of the boundary between uplands and tidelands. (Hawaii Visitors Bureau photo.)

of the waves (20 feet for certain small parcels) in which construction and other operations are generally prohibited except by a special approval-variance procedure."[124]

Under the Hawaii Shoreline Protection Act of 1975,[125] which established special management areas (SMAs) along the coast, county permits are required for certain "developments" which exceed $65,000 or which would significantly affect the shoreline.[126]

The SMA permit procedure is an integral part of the Hawaii Coastal Zone Management Program, developed under the state's CZM Program Act of 1977,[127] and approved by the Federal Government in September 1978. The Department of Planning and Economic Development is the lead agency in administering the program,[128] but many other state and county agencies have roles in its implementation.[129]

ACKNOWLEDGMENTS

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2. HCZMP, *supra*, note 1, at 3.
3. *Id.* at 118. Private parties own 60.1 percent of the coastal uplands, the Federal Government 11.4 percent, and the state and counties 28.5 percent. Telephone conversation on July 22, 1983, with Rodney Funakoshi, Hawaii CZM Program, Department of Planning and Economic Development, State of Hawaii.
4. HCZMP, *supra*, note 1, at 5; Comment, *Hawaii's Ceded Lands*, 3 Haw. L. Rev. 101, 111 n. 62 (1981).
5. Tourism has been Hawaii's main industry since 1970. HCZMP, *supra*, note 1, at 5.
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7. See generally State of Hawaii, *Ocean Leasing for Hawaii* (1981); Keith, *State and Federal Regulation of OTEC Plants in Hawaii*, 2 Solar L. Rptr. 491 (1980).
8. *In re Ashford*, *supra*, 50 Haw. 314, 315, 440 P. 2d 76, 77.
9. 1892 Haw. Sess. Laws ch. 57, § 5; now codified at Haw. Rev. Stat. §1-1. This statute still recognizes the significance of pre-1892 Hawaiian usage: "The common law of England, as ascertained by English and American decisions, is declared to be the common law of the State of Hawaii . . ., *except as otherwise . . . established by Hawaiian usage*; . . ." (Emphasis added.)
10. A detailed discussion of this historical background is, of course, beyond the scope of this article. For further information and citations to numerous references, see *Ocean Leasing for Hawaii*, *supra*, note 7; Comment, *supra*, note 4, 3 Haw. L. Rev. 101; Levy, *Native Hawaiian Land Rights*, 63 Cal. L. Rev. 848 (1975); Comment, *Hawaiian Beach Access: A Customary Right*, 26 Hastings L. J. 823 (1975); Town & Yuen, *Public Access to Beaches in Hawaii: "A Social Necessity,"* 10 Haw. B. J. 5 (1973).
11. Comment, *supra*, note 10, 26 Hastings L. J. at 830-831. "Within most *ahupuaas* were a number of subdivisions called *ilis* that existed for the convenience of the chiefs and were administered by a *konohiki* (an agent of the chief; later used to refer to the chiefs or landlords). The *ilis*, . . . had no separate existence from the *ahupuaa*, and the *konohiki* in charge of an *ili* had to pay tribute to the chief of the *ahupuaa*." *Ibid.* See also Comment, *supra*, note 4, 3 Haw. L. Rev. at 110-111.
12. In 1839 the Declaration of Rights, also called the Hawaiian Magna Carta, was promulgated. One provision prevented the king and chiefs from dispossessing people of their property without cause. The Declaration of Rights was incorporated in the first Constitution of Hawaii in 1840, which changed the form of government from an absolute monarchy to a constitutional one. Comment, *supra*, note 10, 26 Hastings L. J. at 831-832; Comment, *supra*, note 4, 3 Haw. L. Rev. at 111-112. In 1841 the king "again sought to forestall conflict with the foreign community by proclaiming a plan of accommodation allowing the Islands' governors to enter into fifty-year leases with the foreigners." Levy, *supra*, note 10, 63 Cal. L. Rev. at 852 (footnote omitted).
13. Comment, *supra*, note 10, 26 Hastings L. J. at 832; Comment, *supra*, note 4, 3 Haw. L. Rev. at 112 n. 67.
14. Levy, *supra*, note 10, 63 Cal. L. Rev. at 853 (footnote omitted).
15. *Id.* at 854 (footnote omitted).
16. *Id.* at 853.
17. *Id.* at 855. For the first time, the concept of public lands was recognized in Hawaii after the Great *Mahele*. Comment, *supra*, note 10, 26 Hastings L. J. at 832-833. See also Comment, *supra*, note 4, 3 Haw. L. Rev. at 111-112.
18. Levy, *supra*, note 10, 63 Cal. L. Rev. at 857.
19. *Id.* at 862.
20. *Id.* at 858 n. 64.
21. See Hawaii Organic Act, 31 Stat. 141. Because of its status as a territory before entering the Union, Hawaii thus differs from Texas, which had been an independent republic immediately before statehood.
22. HCZMP, *supra*, note 1, at 7, 53-64; telephone conversation, *supra*, note 3.
23. 1977 Haw. Sess. Laws ch. 188; codified at Haw. Rev. Stat. ch. 205A (Pt. I) (Supp. 1982). The SMAs were preexisting areas subject to more intensive regulation that had been delineated on maps filed by the counties pursuant to the Hawaii Shoreline Protection Act of 1975, codified at Haw. Rev. Stat. ch. 205A (Pt. II) (Supp. 1982). The Hawaii CZM Act required the counties to amend the SMAs by 1979 to conform to state policies set forth in that act and criteria detailed in the state's coastal program. HCZMP, *supra*, note 1, at 6-7; Haw. Rev. Stat. § 205A-23 (Supp. 1982).
24. 16 U.S.C. § 1451 *et seq.*
25. HCZMP, *supra*, note 1, at 53.
26. This classification is consistent with the treatment of other states' coastal zone lands in this series. However, the "highest wash of the waves," rather than the line of mean high water based on tidal data, is used in this article as the demarcation between uplands and tidelands because of Hawaiian state coastal boundary case law. See "Determination of Tidal Boundaries," *infra*.
27. By law, federally owned or managed lands are excluded from the coastal zone. 16 U.S.C. § 1453(a). It is noteworthy, however, that the Department of Defense, the National Park Service and other federal agencies have title to many parcels of coastal uplands, including approximately 10.5 miles of the 47 linear miles of uplands owned by governmental entities adjoining sandy beaches. HCZMP, *supra*, note 1, at 118.
28. *City & County of Honolulu* v. *Bennett*, 57 Haw. 195, 197-204, 552 P. 2d 1380, 1384-1388 (1976). The City and County of Honolulu, which was condemning the offshore island for park purposes, contended that a resolution by the Privy Council, advisers to the king, prevented private ownership in the area from the high-water mark of Oahu to a marine league seaward. The court said that the resolution did not have the force of law and that the powers of the king, except for self-imposed limitations, were broad enough to permit conveyances of such offshore islands.
29. See "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
30. HCZMP, *supra*, note 1, at 118. See also Comment, *supra*, note 10, 26 Hastings L. J. at 825; Town & Yuen, *supra*, note 10, 10 Haw. B. J. at 5. For a discussion of this legal boundary, see "Determination of Tidal Boundaries," *infra*.
31. *Brown* v. *Spreckels*, 14 Haw. 399, 404 (1902), 18 Haw. 91 (1906), *aff'd*, 212 U.S. 208, 212 (1909); *Terr.* v. *Liliuokalani*, 14 Haw. 88 (1902).
32. Hawaii Admission Act, 73 Stat. 4, § 5.
33. For a brief discussion of the equal-footing doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.

34. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
35. *Ocean Leasing for Hawaii, supra*, note 7, at V-39; Keith, *supra*, note 7, 3 Solar L. Rptr. at 530-536.
36. Haw. Const. art. XI, § 6 (Supp. 1982) (emphasis added). The statutory definition of districts within the state was amended in 1980 to provide that the districts include "archipelagic waters . . . adjacent thereto." Haw. Rev. Stat. § 4-3 (Supp. 1982).
37. Haw. Const. art. XV, § 1 (Supp. 1982) (emphasis added).
38. *Ocean Leasing for Hawaii, supra*, note 7, at V-40 (footnote omitted).
39. 352 F. 2d 735 (9th Cir. 1965), *aff'g C.A.B.* v. *Island Airlines, Inc.*, 235 F. Supp. 735 (D. Haw. 1964).
40. However, the Court of Appeals pointed out that the State of Hawaii "had full opportunity to become a litigant [in the *Island Airlines* case] had it desired," having sought permission to intervene but then, before the hearing, withdrawing its petition and being granted leave to appear as *amicus curiae*. *Island Airlines, Inc.* v. *C.A.B.*, *supra*, 352 F. 2d at 742.
41. Keith, *supra*, note 7, 3 Solar L. Rptr. at 535-536.
42. Litigation between the State of Hawaii and the United States may be necessary to resolve the claim.
43. Early Hawaiian cases held that when a Land Commission award described the boundary of a lot as "along the sea," the title conveyed extends seaward to the high-water mark. See, *e.g.*, *Terr.* v. *Kerr*, 16 Haw. 363 (1904); *Halstead* v. *Gay*, 7 Haw. 587 (1889). However, the courts recognized that the sovereign power existed to grant lands seaward to the low-water line. *Brown* v. *Spreckels*, *supra*, 14 Haw. 399, 404, 18 Haw. 91, *aff'd*, 212 U.S. 208; *Terr.* v. *Liliuokalani*, *supra*, 14 Haw. 88.
44. See Cox, *Shoreline Property Boundaries in Hawaii*, Hawaii Coastal Zone Management Program, Tech. Supp. No. 21 (1980), at 96-117.
45. 50 Haw. 314, 440 P. 2d 76 (1968).
46. *Id.* at 315, 440 P. 2d at 77. Although it is arguable that this definition was dictum, *i.e.*, unnecessary to the decision on the issues before the court, it has been subsequently applied in other cases as representing state law.
47. *Ibid.*
48. *Id.* at 315-316 n. 2, 440 P. 2d at 77-78 n. 2. The trial judge had permitted the state's two *kamaaina* witnesses to testify, in order to preserve the record on appeal, but had agreed with the private owners' objections to the *kamaaina* witnesses' testimony about the ancient Hawaiian tradition, custom and usage of delineating *makai* boundaries. *Id.* at 315-316, 440 P. 2d at 77-78.
49. *Id.* at 315, 440 P. 2d at 77. The court thus rejected the federal rule for determining the upland tideland boundary as set forth in *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935). For a brief discussion of *Borax*, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18. By defining the high-water mark in terms of a vegetation or debris line, Hawaii's court expanded landward the limit of the state's tidelands ownership along sandy beaches in comparison to jurisdictions that have adopted the *Borax* rule. In *Ashford*, the court noted that the edge of vegetation or debris line on the beach involved in the case, located on the Island of Molokai, was approximately 20 to 30 feet landward of the line of mean high water, *i.e.*, the intersection of the tidal datum of mean high water with the shore. *In re Ashford*, *supra*, 50 Haw. at 315, 440 P. 2d at 77.

The court, stating that property rights are determined by the law in existence when the rights are created, said that when the royal patents were issued in 1866 the Hawaiian sovereign had no "knowledge of the data contained in the publications of the U.S. Coast and Geodetic Survey [now the National Ocean Service], [and] did not intend to and did not grant title to the land along the ocean boundary as claimed by the [private owners]." *Id.* at 315, 317, 440 P. 2d at 77-78.

50. *Id.* at 318, 440 P. 2d at 78-79 (Marumoto, J., dissenting). He said that the decision "[s]o long as it remains unaltered as the last word of this court on the subject, . . . will control the determination of the seaward boundary of every parcel of unregistered private land [*i.e.*, land whose title had not previously been registered under the statutory land court proceedings, such as the property involved in *Ashford*] in this State in which the title document describes the seaward boundary as being 'along the sea'; and, also, the determination of the seaward boundary of every parcel of private land built up by accretion to registered land and the seaward boundary of every parcel of registered land left over after erosion." *Id.* at 318, 440 P. 2d at 79 (Marumoto, J., dissenting).
51. *Id.* at 330-346, 440 P. 2d at 86-95 (Marumoto, J., dissenting).
52. *Id.* at 321, 440 P. 2d at 80 (Marumoto, J., dissenting) (emphasis in original).
53. 54 Haw. 176, 517 P. 2d 57 (1973), *cert. denied*, 419 U.S. 872 (1974).
54. Unlike *Ashford*, which concerned land court proceedings to register title to land that had not been previously registered, in *Sotomura* the property had been registered in the land court in 1962, eight years before the County of Hawaii filed its eminent domain action. The surveyor who had prepared the land court registration application testified that he had located the high-water mark along the *limu* (or seaweed) line. *Id.* at 177-179, 517 P. 2d 59-60.

The Hawaiian word *limu* "refers to any type of plant living under water, and to algae growing in damp places, some mosses, liverworts, and lichens. . . . In the context of seashore boundary description it is synonymous with seaweed, primarily applying to sessile marine algae." Cox, *supra*, note 44, at 100.

55. *County of Hawaii* v. *Sotomura*, *supra*, 54 Haw. at 182, 517 P. 2d at 62. This was the position taken by the county. The private owners had contended that their land's seaward boundary had been permanently fixed by the land court determination in 1962, *i.e.*, along the *limu* (seaweed) line as previously surveyed.
56. *Ibid.* One writer defines *debris line* as "a windrow of debris left on the shore by waves," noting that "several debris lines may generally be found at most times on most shores. . . . The position of the uppermost debris line is usually essentially coincident with that of the vegetation line, on the crest of the beach berm, . . ." Cox, *supra*, note 44, at 100.

He defines *vegetation line*, which is synonymous with *edge of vegetation*, to mean "the seaward edge of land vegetation whose further growth seaward is limited by salt-water inundation or other wave effects." *Id.* at 98-99.

57. *County of Hawaii* v. *Sotomura*, *supra*, 54 Haw. at 182, 517 P. 2d at 62 (footnote omitted; emphasis added).
58. *Id.* at 181-182, 517 P. 2d at 61.
59. *Id.* at 182, 517 P. 2d at 61-62.
60. *In re Sanborn*, 57 Haw. 585, 594, 562 P. 2d 771, 777 (1977). In *Sanborn*, the court held that the distances and azimuths contained in the private owners' 1951 land court decree of registration, although *prima facie* evidence of the high-water mark, must yield to the "vegetation and debris line" representing the "upper reaches of the wash of the waves." *Id.* at 588-591, 561 P. 2d at 773-775. See also *Littleton* v. *State*, 656 P. 2d 1336, 1343 (Haw. 1982); *Kaczmarczyk* v. *City & County of Honolulu*, 656 P. 2d 89, 92 (Haw. 1982).
61. Illustrative of the subordination of state boundary law to federal law are *California ex rel. State Lands Comm'n* v. *United States*, 102 S.Ct. 2432 (June 18, 1982), and *Hughes* v. *Washington*, 389 U.S. 290 (1967). For a brief discussion of these cases, see *Shore and Beach*, Vol. 51, No. 2, April 1983, pp. 16-18.
62. Hawaii's Intermediate Court of Appeals mentioned the uncertainty about the state's upland tideland boundary in litigation about a real estate sales agreement: "The change in the location of the waterfront was made by Hawaii's Supreme Court in judicial decisions. The question is still pending in several federal court cases and the final validity of the Hawaii Supreme court decision setting the vegetation line has not yet been finally determined." *Shaffer* v. *Earl Thacker Co., Ltd.*, 641 P. 2d 983, 987 (Haw. App. 1982).
63. *Sotomura* v. *County of Hawaii*, 460 F. Supp. 173, 177, 182-183 (D. Haw. 1978). The Sotomuras obtained a judgment in their civil rights suit brought under 42 U.S.C. § 1983. The governmental defendants appealed, and the U.S. Court of Appeals for the Ninth Circuit dismissed the appeal in 1982 because it was not filed in time. *Sotomura* v. *County of Hawaii*, 679 F. 2d 152 (9th Cir. 1982).
64. 460 F. Supp. at 182-183.
65. *Id.* at 178. The U.S. District Court stated: "The relevant precedent included rulings of the land court . . . and the Hawaii Supreme Court's implicit acceptance of that elevation, . . . in [a 1956 case]. It also included the [state] Attorney General's opinions . . . referring to 'mean high water mark' as an ownership and jurisdictional limit along the shore. The Hawaii Legislature itself recognized as early as 1928, and continued to recognize as late as 1964, that 'mean high water mark' is the line of division between private and public property along Waikiki Beach." *Ibid.* (footnotes omitted).
66. *Id.* at 178-179. The federal court asserted: "The Hawaii Supreme Court's opinion in *Sotomura* does not indicate any legal basis

for the presumption that the upper reaches of the wash of the waves over the course of a year lies [*sic*] along the line marking the edge of vegetation growth when such a line occurs inland from a debris line marking the wash of the waves . . . ." *Id.* at 480.

67. Because the *limu* (seaweed) line originally had been used to determine the seaward boundary of the land in the prior land court proceedings, it was the federal court's position that the trial judge in the condemnation action "should have used the same method of establishing" that boundary *after* the erosion had occurred. *Id.* at 483.

    Ironically, between the time of the Hawaii Supreme Court's 1973 *Sotomura* decision and the 1978 federal ruling, an earthquake caused the land in question to sink nearly 2 feet. *Id.* at 477 n. 13. Because the trial judge in the eminent domain case had not determined "where the *limu* line or the mean high tide [line] actually was" after the erosion, and in light of the subsequent subsidence of the land, the federal court said "it would be appropriate to accept the debris line as found by the trial court to be the proper seaward boundary of [the land] at the time it was condemned." *Id.* at 483.

68. *Halstead* v. *Gay*, *supra*, 7 Haw. 587.
69. *State* v. *Zimring*, 58 Haw. 106, 566 P. 2d 725 (1977).
70. *Id.* at 123, 566 P. 2d at 736.
71. *Id.* at 120-121, 566 P. 2d at 734-735.
72. *County of Hawaii* v. *Sotomura*, *supra*, 54 Haw. 176, 183-184, 517 P. 2d 57, 62, *cert. denied*, 419 U.S. 872. The court also referred to the public trust doctrine as a basis for its holding. See "Hawaii's Public Trust Doctrine," *infra*.
73. *In re Castle*, 54 Haw. 276, 277, 506 P. 2d 1, 3 (1973).
74. HCZMP, *supra*, note 1, at 45-48.
75. "One tsunami in 1946 took 159 lives and caused $26 million in damages. The 1960 tsunami in Hilo killed 61 people and destroyed 537 buildings causing $22 million in damages." *Id.* at 3-4.
76. For a brief discussion of this doctrine, which originated at common law, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
77. 11 Haw. 717 (1899).
78. *Illinois Central R.R.* v. *Illinois*, 146 U.S. 387 (1892).
79. 11 Haw. at 723-725. The case involved a private corporation's right to condemn and develop part of Honolulu Harbor. In a decision handed down only a year after annexation, the Hawaii court denied the corporation's power to condemn submerged lands.
80. *Terr.* v. *Kerr*, *supra*, 16 Haw. 363.
81. *Id.* at 376.
82. "Private fishing rights received official written recognition in 1839 as a section of 'An Act to Regulate the Taxes,' and entered the Laws of 1840 as Chapter III-8, 'Of free and prohibited fishing grounds.'" *Ocean Leasing for Hawaii*, *supra*, note 7, at V-126.
83. *Id.* at V-127.
84. *Ibid.* "The [Hawaii] Civil Code of 1859 added to the laws of 1840 the proviso that the konohiki fishing grounds extend 'where there happen to be no reefs, from the distance of one geographical mile seaward to the beach at low water mark.'" *Id.* at V-140 n. 9.
85. Hawaii Organic Act, 31 Stat. 141.
86. *Ocean Leasing for Hawaii*, *supra*, note 7, at V-128.
87. Only 101 fisheries were registered, and approximately 250 other fisheries were opened to the public. *Id.* at V-129.
88. *Damon* v. *Terr.*, 194 U.S. 154 (1904); *Carter* v. *Terr.*, 200 U.S. 255 (1906).
89. *Carter* v. *Terr.*, 14 Haw. 465 (1902). The Hawaii court "held that the only private property . . . in the fishery was protected only as long as the statutes were in force, but when they were repealed [by the Organic Act] there was no property in the fishery because the government had no obligation to protect its citizens against injury inflicted by a change in the law. The court based its decision upon the public trust doctrine, . . ." Town & Yuen, *supra*, note 10, at 26-27. Following the U.S. Supreme Court's reversal of this decision, the Hawaii court upheld the status of *konohiki* rights as vested property rights. *Damon* v. *Tsutsui*, 31 Haw. 678, 692 (1930); *Kapiolani Estate* v. *Terr.*, 18 Haw. 460, 462 (1907); *In re Fukunaga*, 16 Haw. 306, 308 (1904). See also Comment, *supra*, note 10, 26 Hastings L.J. at 839-841.
90. 35 Haw. 608 (1940).
91. Only about 40 *konohiki* fisheries remain, most of which are around Oahu. *Ocean Leasing for Hawaii*, *supra*, note 7, at V-129.

    Hawaii statutory law still protects these private *konohiki* fishing rights. Haw. Rev. Stat. § 188-4 provides: "The fishing grounds from the reef and where there happen to be no reefs, from the distance of one geographical mile seaward to the beach at low watermark, shall, in law, be considered the private property of the konohiki, whose lands, by ancient regulation, belong to the same; in the possession of which private fisheries, the konohiki shall not be molested, except to the extent of the reservations and prohibitions hereafter in this chapter set forth." See also *id.* § 188-5-13.

    In addition to *konohiki* rights, certain tenants' fishing rights are recognized by the Hawaii Constitution and statutes. Haw. Const. art. XII, § 7 (Supp. 1982); Haw. Rev. Stat. § 188-5. See *Ocean Leasing for Hawaii*, *supra*, note 7, at V-129-135.

92. *County of Hawaii* v. *Sotomura*, *supra*, 54 Haw. 176, 183-184, 517 P. 2d 57, 63, *cert. denied*, 419 U.S. 872. For a discussion of this case and a related subsequent lawsuit in federal court, see "Upland Tideland Boundary" under "Determination of Tidal Boundaries," *supra*.

    See also *In re Sanborn*, *supra*, 57 Haw. 585, 593-594, 562 P. 2d 771, 776, stating that "the public trust doctrine, . . . can . . . be deemed to create an exception to our land court system, thus invalidating any purported registration of land below high water mark." (Footnote omitted.)

93. *State* v. *Zimring*, *supra*, 58 Haw. 106, 121, 566 P. 2d 725, 735. For a discussion of this case, see "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.
94. Haw. Const. art. XI, § 1 (Supp. 1982).
95. Of the total of 185 linear miles of sandy beaches, 137 miles abut privately owned or managed lands. HCZMP, *supra*, note 1, at 118-119.
96. *Id.* at 26. See also Haw. Rev. Stat. § 205A-2(c)(1)(iii).
97. Haw. Rev. Stat. §§ 171-26, 171-35. A similar requirement is imposed on the state Department of Transportation. *Id.* § 266-4.5. In addition, counties must require coastal shoreline subdividers, where public access is not already provided, to dedicate a right of way or easement for access to the land below the high-water mark. *Id.* § 46-6.5.
98. *Id.* § 205-32. No new structures may be built in the setback area of not less than 20 feet nor more than 40 feet landward of the "upper reaches of the wash of waves." *Ibid.* According to some legal writers, this 1970 statute "was passed to prevent further encroachment of public beaches by developers who were building hotels up to the line of vegetation, and in several instances, seaward of the mean high water mark and into the water." Town & Yuen, *supra*, note 10, 10 Haw. B. J. at 8.
99. *County of Hawaii* v. *Sotomura*, *supra*, 54 Haw. at 182, 517 P. 2d at 62.
100. ". . . [H]igh rise condominiums and resort complexes have proliferated along the shoreland, and the amount of beach front property not committed to the tourist industry has been significantly reduced. Public use of once accessible undeveloped shorelands is now effectively precluded by *kapu* [taboo] signs [having the effect of no-trespassing signs] and the enforcement of trespass law." Comment, *supra*, note 10, 26 Hastings L. J. at 823-824 (footnotes omitted). See also Town & Yuen, *supra*, note 10, 10 Haw. B. J. at 5, asserting: "A people accustomed to using beaches for years or even generations are slowly being denied access to beaches which are public property [because of beachfront development]."
101. For a brief discussion of *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P. 2d 671 (1969), holding that the public is entitled to use the dry-sand part of the beach, see *Shore and Beach*, Vol. 50, No. 2, July 1982, pp. 16-17, 19-20.
102. *State* v. *Zimring*, *supra*, 52 Haw. 472, 475, 479 P. 2d 202, 204.
103. Comment, *supra*, note 10, 26 Hastings L. J. at 837. Other legal writers state that "[i]t can be forcefully argued that by ancient Hawaiian usage all persons enjoyed access either on [an] unrestricted basis or at designated places along the shoreline." Town & Yuen, *supra*, note 10, 10 Haw. B. J. at 12. They assert that there were ancient Hawaiian trails both along the shoreline and on mountain ridges extending down to the shore. *Ibid.*
104. 444 U.S. 164 (1979).
105. The federal navigational servitude, as distinguished from easements existing under the public trust doctrine, is based on the commerce clause of the U.S. Constitution. For a brief discussion of the federal navigational servitude, see *Shore and Beach*, Vol.

49, No. 1, January 1981, pp. 16-17.

106. 444 U.S. at 166-167.
107. 444 U.S. at 180.
108. *Ocean Leasing for Hawaii, supra*, note 7, at V-149.
109. *State* v. *Zimring, supra*, 58 Haw. at 119, 566 P. 2d at 734.
110. *Terr.* v. *Kerr, supra*, 16 Haw. 363. In that case, however, the court said the government could require a littoral owner to remove a concrete seawall extending onto the tidelands.
111. Haw. Rev. Stat. § 171-36(9).
112. HCZMP, *supra*, note 1, at 113.
113. Gerald S. Clay, an attorney in private practice in Honolulu, was selected by the Department of Planning and Economic Development as consultant to prepare the report and was its principal author. *Ocean Leasing for Hawaii, supra*, note 7, at i.
114. "Aquaculture is defined as the propagation and cultivation of aquatic animals and plants for profit or social benefit. The aquaculture activities which take place in brackish water or seawater are termed mariculture." *Id.* at II-1 (footnote omitted).
115. "The basic process of OTEC is one of drawing cold water from deep ocean areas to the surface and trapping the energy released as the cold water is heated." HCZMP, *supra*, note 1, at 115.
116. "A fish aggregation device is a floating or submerged structure deployed in the ocean to attract, congregate and hold fishes and other free-swimming aquatic organisms for harvest by commercial and recreational fishermen." *Ocean Leasing for Hawaii, supra*, note 7, at II-10-11.
117. *Id.* at VII-1-22.
118. Haw. Const. art. XI, § 6 (Supp. 1982).
119. Haw. Rev. Stat. §§ 171-35, 171-36 (Supp. 1982).
120. *Id.* § 171-26 (Supp. 1982).
121. Haw. Rev. Stat. ch. 205.
122. *Ocean Leasing for Hawaii, supra*, note 7, at VI-3.
123. Haw. Rev. Stat. § 205-31 *et seq.*
124. HCZMP, *supra*, note 1, at 21. The "shoreline" is defined in the setback statute as "the upper reaches of the wash of waves, other than storm and tidal waves, usually evidenced by the edge of vegetation growth, or the upper line of debris left by the wash of waves." Haw. Rev. Stat. § 205-31 (2).
125. *Id.* § 205A-21 *et seq.* (Supp. 1982).
126. The statute contains a detailed definition of what is or is not a "development" within SMAs. *Id.* § 205A-22(3) (Supp. 1982). It also sets forth guidelines for the management and protection of resources within SMAs, including provisions for public beach access. *Id.* § 205A-26 (Supp. 1982).
127. Haw. Rev. Stat. ch. 205A (Pt. I) (Supp. 1982).
128. *Id.* § 205A-1(5) (Supp. 1982); HCZMP, *supra*, note 1, at 99.
129. For a list of these agencies, see *id.* at 99-103.

The Law of the Coast in a Clamshell*

Part XIV: The Maryland Approach

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Chesapeake Bay—the nation's largest and most productive estuarine complex[1]—slices through the heart of Maryland. Almost one-third of the state's total area lies under the waters of this magnificent bay and its dozens of tributary rivers.[2]

The Chesapeake is famous for the variety and delectability of its shellfish.[3] For several decades, however, the bay's oyster harvest and blue crab yield have been dramatically shrinking.[4] One reason: increasing pollution in the Chesapeake and its tributaries. A September 1983 report by the United States Environmental Protection Agency characterizes the bay as "clearly an ecosystem in decline."[5]

Because the Chesapeake and some of its tributaries extend into adjoining states, Maryland faces a difficult task in coping with the estuary's diverse legal and environmental problems. Maryland joined with Virginia to create the bistate Chesapeake Bay Commission in 1980 to address bay pollution and other issues.[6] In the wake of the EPA's recent report, governors and other officials from Maryland, Virginia and Pennsylvania conferred in December 1983 to "articulate a set of strategies for management of the bay that are technically sound, economically feasible and politically implementable."[7]

Currently, Maryland's lawmakers and administrators seem to be concentrating on the estuary's waters and the 4,000-mile shoreline of the Chesapeake and its feeder rivers.[8] But serious legal questions have also arisen along the Old Line State's 31 miles of Atlantic Ocean coast.[9] For example, Ocean City (Fig. 1), a popular resort on an erosion-prone barrier island, has been the setting of major litigation over conflicting private and public rights to use the beach.[10]

TITLE TO LANDS WITHIN THE COASTAL ZONE

As defined in the Maryland Coastal Management Program, the state's coastal zone embraces Baltimore City and 16 counties bordering the Atlantic Ocean, Chesapeake Bay and the Potomac River upstream to Washington, D.C.[11] The zone includes all of the Maryland portion of the Chesapeake and extends seaward to the 3-mile limit of the state's jurisdiction in the Atlantic.[12]

Coastal zone lands may be divided into uplands, tidelands and submerged lands.[13]

A. Uplands

Along the shores of Chesapeake Bay and its tributaries, such as the Potomac, private parties have title to the vast majority of the littoral and riparian uplands.[14] Although the state's Atlantic seacoast includes the federally owned Assateague Island National Seashore, private parties own most of the uplands in Ocean City and elsewhere on Fenwick Island and adjoining the coastal bays.[15]

Privately owned coastal wetlands such as marshes are extensively regulated by the state and local governments.[16]

B. Tidelands

When the Declaration of Independence was signed on July 4, 1776, the State of Maryland succeeded the English crown as the owner of all previously ungranted lands under tidal waters within its borders.[17]

The state's right to grant such lands into private ownership was upheld by Maryland's highest tribunal, the Court of Appeals, in 1821.[18] An 1862 statute, however, prohibited the issuance of patents to lands covered by navigable waters.[19] In 1943 a law was enacted permitting the state Board of Public Works to sell tidelands to anyone for a consideration that the board decided was adequate.[20] This sweeping authority was limited in 1970, and the board now can sell these lands only to adjoining upland owners.[21]

C. Submerged Lands

Maryland has title to submerged lands within three geographical miles of its Atlantic coast by virtue of the Submerged Lands Act of 1953.[22] It and other East Coast states lost their claim to the area beyond that line in a 1975 U.S. Supreme Court case.[23]

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*This is the 14th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Maryland concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1984 by Peter H.F. Graber. The author also asserts copyright protection for the first 13 articles in the series.

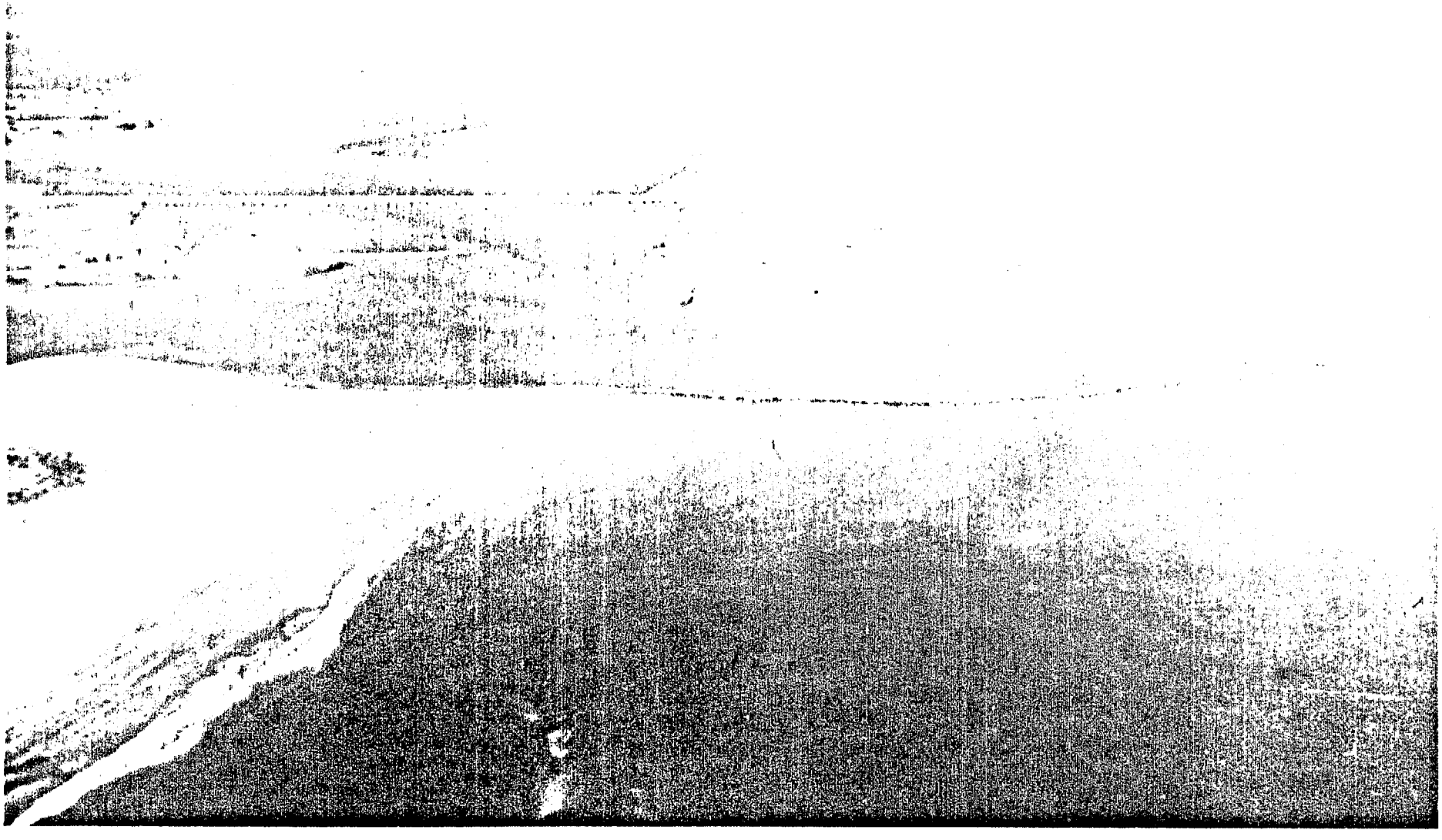

Fig. 1. Jetties flank the entrance to the harbor at Ocean City, Maryland. In this aerial view looking northward, note the accretion upcoast from the north jetty and the erosion downcoast from the south jetty. In a significant legal decision involving shorefront property at Ocean City, the state's high court subordinated public beach access rights to private developmental rights. (Photo courtesy of Stephen P. Leatherman, University of Maryland.)

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Although some tidelands are privately owned,[24] the line of mean high water, in general, is the waterward property boundary of private littoral lands.[25] In 1971 the state's highest court approved a trial judge's definition of the term "high water mark" as

> "[the] highest elevation of water in the course of the usual, regular, periodical ebb and flow of the tide excluding the advance of waters above that line by winds and storms or by freshets and floods."[26]

For regulatory purposes, under the Maryland Wetlands Act,[27] the line of "mean high tide, affected by the regular rise and fall of the tide," is considered the landward limit of "State wetlands."[28] However, there is apparently some uncertainty about the proper method of locating that boundary.[29]

B. Legal Effect of Physical Changes in the Location of the Shoreline

With some qualifications, Maryland follows the usual rule that property boundaries of lands adjoining tidal waters shift with those gradual, imperceptible physical changes termed accretion and erosion.

As early as 1829, a state court recognized an upland owner's right to accretions at common law.[30] Then, in 1862, this right was set out in a statute:

> "The proprietor of land bounding on any of the navigable waters of this State shall be entitled to all accretions to said land by the recession of said water, whether heretofore or hereafter formed or made by natural causes *or otherwise*, . . ."[31]

However, this statutory language was ambiguous for several reasons. First, "it confuses accretion, which is a gradual and imperceptible build-up of soil deposits on the shore, with reliction, which is an exposure of submerged land by the retrocession of the water."[32] Second, "it is unclear what accretions 'made . . . otherwise' are," raising the question of whether a littoral landowner can expand his holdings by filling adjoining water-covered areas.[33]

The Maryland Wetlands Act,[34] passed in 1970 and creating a broad regulatory scheme, superseded the 1862 statute.[35] This new law, unlike the repealed statute, entitles the upland owner to *natural* accretions only.[36] Although this portion of the Wetlands Act has not been judicially construed in a case involving a dispute between the state and a private party,[37] the statutory provision appears to be similar to the case law in California. Under that state's decision, private landowners are deprived of the benefit of artificially caused accretions.[38]

In *Department of Natural Resources* v. *Ocean City*,[39] the Maryland high court emphasized the distinction between erosion and avulsion. The court recognized that the state gains title to fast land that becomes submerged as the result of gradual erosion, but held that that rule "is not applicable to an avulsion, defined as a sudden or violent change, which does not generally affect land boundaries, . . ."[40]

Evidence in that case indicated that the beach in question had accreted an average of 1.6 feet annually between 1850 and 1929, then had eroded some 270 feet from 1929 to 1947 and "was 450 feet narrower" following the severe March 1962 storm "than it had been in 1922."[41] Distinguishing the result of the 1962 storm from gradual erosion, the court said that the change "would clearly be classified as an avulsion,"[42] adding:

> ". . . It was of short duration, flooding much of Ocean City at its height, and destroying or extensively damaging houses and other structures. When it was over, the waters receded, leaving most of the land unchanged, except for the disappearance of the dunes which had lined the beach. The idea that title reverted to the State once the land was temporarily flooded is simply not a tenable contention."[43]

In 1975, after this *Ocean City* decision, Maryland's legislature, the General Assembly, passed the Beach Erosion Control District Act.[44] This statute establishes a beach erosion control district on Assateague and Fenwick Islands along the state's Atlantic shore, "prohibits certain activities within the district and provides for the payment of compensation for any taking of [private] property rights."[45]

MARYLAND'S PUBLIC TRUST DOCTRINE

Unlike courts in such states as California[46] and New Jersey,[47] the Maryland Court of Appeals has not expansively applied the public trust doctrine, the concept dealing with the public's rights of navigation and fishing in tidal waters.[48] However, the state's high tribunal has recognized public rights in tide-covered lands.

Interestingly, the original Charter of Maryland in 1632, by which the lands and waters now within the state were granted by the English crown to the lord proprietor of the colony, expressly refers to these rights. The grant of Caecilius Calvert, Lord Baltimore, was subject to a reservation in favor of the king, his heirs and his subjects preserving their right of navigation "in the sea, bays, straits, and navigable rivers, as in the harbours, bays, and creeks of the province. . . ."[49]

Article 5 of the Declaration of Rights, embodied in every Maryland Constitution since 1776,[50] provides that "the Inhabitants of Maryland are . . . entitled to all property derived to them from, or under the Charter granted by His Majesty Charles the First" to Lord Baltimore.[51] This provision has been judicially construed as subjecting the grants of tide-flowed lands into private ownership to the public's rights of navigation and fishing.[52]

One legal writer, while noting that "the doctrine of public trust has played a part in Maryland common law since 1821,"[53] concluded in 1973 that the concept "is not widely accepted" within the state.[54] Two years later, in the previously discussed *Ocean City* case,[55] the state's Court of Appeals recognized that Maryland holds its tidelands for the public benefit,[56] but nevertheless refused to apply the public trust doctrine to the *dry-sand* beach between the vegetation (or dune) line and the mean high-water mark.[57]

This case involved a privately owned upland tract at Ocean City; the state asserted that the proposed con-

struction of a four-story condominium on the site would effectively deny the public use of the beach.[58] The state claimed that the English crown's reservation under the 1632 grant to Lord Baltimore guaranteed the public's right to use the dry part of the seashore as well as the sea itself.[59] The court conceded that "[t]he scope of the rights reserved is strikingly reminiscent of Roman law,"[60] under which the seashore was common for all.[61] However, the court refused to look into the "[i]ntriguing . . . questions" raised by this early reservation.[62] The position taken by the Maryland tribunal contrasts with that of the New Jersey Supreme Court, which in 1978 applied the public trust doctrine to the dry-sand part of a municipally owned beach landward of the mean high-tide line under limited circumstances.[63]

PUBLIC ACCESS RIGHTS

In the *Ocean City* case,[64] discussed above, public recreational use of the dry-sand portion of the beach was subordinated to private property rights. By a 6-1 margin, the Maryland Court of Appeals declined to apply various legal doctrines employed by other states' courts as a means of encouraging public beach access.[65]

The Maryland court held that (1) none of the area within the private landowner's upland tract had been either expressly or impliedly dedicated to the public, (2) the facts of the case did not support the claim that the public had obtained an easement by prescription and (3) the facts failed to show the ancient use of the area necessary to apply the doctrine of custom.[66] In upholding the owner's right to construct a condominium on the tract, the majority said:

> ". . . What the [state and other] petitioners are attempting to do here, under an assertion of the public's right to picnic and sunbathe on the dune, is to deny the [owner] a use of his property to which he has an otherwise lawful right: the right to build [improvements extending] to Ocean City's building limit line. . . ."[67]

Judge Eldridge dissented, concluding that "the landowner and his predecessors in title have recognized the public's right to use and the public's use of the dry sand beach to such an extent, that an implied easement to the public for recreational purposes has been created."[68] He based his conclusion on the totality of the circumstances involved, including, among others, the "unique status" of the beach accorded by the 1632 Charter of Maryland, the limited length of the state's ocean shoreline compared with its inland tidal shoreline and "the understanding of the citizens . . . that the entire beach at Ocean City is open to the public. . . ."[69]

Despite a legislative effort to promote public beach access, by means of a statute intended to mitigate the effects of erosion along the Atlantic coast, the Maryland Coastal Management Program recognizes the existing limitations on access to the waters of both the ocean and Chesapeake Bay.[70]

PRIVATE LITTORAL RIGHTS

In addition to the right to accretions,[71] private upland owners in Maryland enjoy access to the abutting tide and submerged lands.[72] The Wetlands Act of 1970 provides:

> ". . . A person who is the owner of land bounding on navigable water . . . may make improvements into the water in front of the land *to preserve that person's access* to the navigable water or protect the shore of that person against erosion. After an improvement has been constructed, it is the property of the owner of the land to which it is attached. . . ."[73]

Previous statutory law concerning the littoral owners' right to wharf out and construct other improvements into the adjoining water, originating in an 1862 statute, was repealed by the Wetlands Act.[74] But the state's highest court has declared that "in most respects, the riparian right granted in 1862 . . . has been carried forward and is alive in the Wetlands law."[75]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

A statute authorizes Maryland to lease the lands underlying the state's sovereign "inland waters"—such as Chesapeake Bay—and its 3-mile-wide band of Atlantic Ocean waters.[76]

B. Regulatory Functions

Since 1970, Maryland's "wetlands" have been extensively regulated under the Wetlands Act.[77] The statute divides wetlands into two classes: (1) "State wetlands," or lands under navigable, tidal waters below the line of mean high tide, except any such lands that have been validly granted into private ownership,[78] and (2) "private wetlands," or those lands bordering on or lying beneath tidal waters that support aquatic growth and that are not deemed state wetlands.[79]

Straightforward, stringent restrictions are placed on the use of state wetlands: "A person may not dredge or fill on State wetlands, without a license."[80] The use of private wetlands is governed by a more complex procedure, but with fewer limitations on private usage. Under the Wetlands Act, the secretary of natural resources prepares boundary maps delineating the wetlands,[81] and then promulgates rules and regulations governing the use of private wetlands in each local jurisdiction.[82] Despite these rules and regulations, the statute declares certain uses of private wetlands to be lawful;[83] moreover, activities not allowed by the rules and regulations may be authorized under permits issued by the secretary of natural resources.[84]

Before a 1981 change in the law,[85] it was necessary for the state Department of Natural Resources to comply strictly with the Wetlands Act's procedures for promulgating rules and regulations to ensure their validity and enforceability. This was demonstrated in the 1980 *Hirsch* decision,[86] in which the Maryland Court of Appeals held that a waterfront property owner could not be required to restore wetlands to their natural condition after they were filled in violation of such rules and regulations. The court found that the state had not fully complied with the act's filing requirements. The owner had purchased after the filing failure and may have been unaware of wetlands restrictions on the land.[87]

After the *Hirsch* case, the Wetlands Act was amended to declare the rules and regulations to be valid and enforceable despite a failure to file them properly, providing an owner had actual notice of the regulations before filling or dredging wetlands.[88]

Aside from the Wetlands Act, which has statewide applicability, some of Maryland's coastal lands are also subject to more localized restrictions. For example, a state law prohibiting the dredging, taking and carrying away of sand and gravel from the tidal waters or marshlands of only a single designated county was adjudged constitutional.[89] Similarly, the court upheld another county's power, under its authority to enact local zoning ordinances, to regulate an upland owner's right to wharf out.[90]

Such regulatory laws as the 1970 Wetlands Act[91] and the 1975 Beach Erosion Control District Act[92] are among the numerous existing statutes that were "networked" into the Maryland Coastal Management Program.[93] The state Department of Natural Resources, through its Tidewater Administration, is the lead agency in administering the program,[94] which the Federal Government approved in September 1978.

ACKNOWLEDGMENTS

The author is grateful to Emil H. Bradley, Jr., Mark A. Butterworth and Trisha Dednarz of the Tidewater Administration, Department of Natural Resources, and Thomas A. Deming, assistant attorney general, State of Maryland, for providing some of the source material cited in this article.

REFERENCES

1. *State of Maryland Coastal Management Program and Final Environmental Impact Statement* 1, 57, 440 (1978) [hereinafter cited as MCMP]. The program was prepared under the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq.* For a brief discussion of the bay's interesting history and extensive natural resources, see U.S. Dep't of Interior, *Chesapeake Bay in Legal Perspective* (1970) [hereinafter cited as *Chesapeake Bay*]. This excellent report, part of the Estuarine Pollution Study Series, was prepared under contract by the University of Maryland School of Law. Prof. Garrett Power was the project director.
2. The bay, which lies within both Maryland and Virginia, has a surface area of about 4,300 square miles. It is 165 nautical miles long and has a total shoreline of 4,612 miles. *Chesapeake Bay*, *supra* note 1, at 1, 39.
3. *Id.* at 43.
4. N.Y. Times, Sept. 27, 1983, at 11, col. 1. Maryland leads the nation in oyster and crab production. MCMP, *supra* note 1, at 2. A discussion of the Chesapeake Bay fishery resources is beyond the scope of this article. See generally *Chesapeake Bay*, *supra* note 1, 43, 74, 87-89, 111 (Maryland), 116-117 (Virginia), 214-222. For more detailed legal discussions of Maryland's management of the oyster resources of the bay, see Power, *More About Oysters Than You Wanted to Know*, 30 Md. L. Rev. 199 (1970); Lewis & Strand, *Douglas v. Seacoast Products, Inc.: The Legal and Economic Consequences for the Maryland Oystery*, 38 Md. L. Rev. 1 (1978).
5. N.Y. Times, *supra* note 4, at 11, col. 1. This "often gloomy two-volume report on a seven-year study of the bay," costing $27 million, was released Sept. 26, 1983, by the EPA. It has been estimated that Maryland, Virginia, Pennsylvania and the Federal Government would need to spend $1 billion over a 10-year period to clean up the bay. *Ibid.*
6. Creation of the commission, consisting of 14 members—seven from each state—and intended to advise the two states' legislators in evaluating and responding to Chesapeake Bay problems of mutual concern, was authorized by 1980 Md. Laws chs. 576, 674, 1982 Md. Laws ch. 393, codified at Md. Nat. Res. Code Ann. § 8-302 *et seq.* (Supp. 1982), and by 1980 Va. Acts ch. 662, codified at Va. Code § 62.1-69.5 *et. seq.*
7. *1983 Chesapeake Bay Conference, Status Report* 1 (June 1983). In this report, written in advance of the public release of the EPA's report, it was stated: "The conference process is being driven, to a large extent, by the [EPA] Chesapeake Bay Program. . . . [T]he subject matter is being expressly tailored to cast in a management framework the new knowledge we have gained from the Bay Program about nutrients, toxics, and the relationships between water quality and living resources." *Ibid.*
8. Figures for the length of the shore of the bay and its river tributaries within Maryland's portion of the Chesapeake estuarine complex vary, depending on how the shoreline is measured. For example, the *Maryland Coastal Management Program* document states that Maryland's part of "the Chesapeake Bay area is characterized by over 4,000 miles of greatly indented shoreline." MCMP, *supra* note 1, at 1. On the other hand, a legal commentator, citing an encyclopedia, writes that Maryland has "approximately 3,200 miles of coastline, primarily along the Chesapeake Bay and its tributaries, . . ." Recent Decisions, *Enforcement of the Maryland Wetlands Act "Bogs Down" in the Court of Appeals*, 41 Md. L. Rev. 137, 138 (1981) (footnote omitted).
9. MCMP, *supra* note 1, at 1.
10. See "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," "Maryland's Public Trust Doctrine" and "Public Access Rights," *infra*.
11. MCMP, *supra* note 1, at 72.
12. *Id.* at 73. The Charter of Maryland in 1632 "included all the islands within 34.5 miles of Maryland's easternmost shore." Recent Developments, *Property—Coastal Shores*, 5 U. Balt. L. Rev. 349, 354 (1976). Maryland embraces portions of Atlantic Ocean barrier islands that cross over the state boundary and extend into Delaware and Virginia.
13. This classification is used for convenience and consistency with other articles in this series. However, the term *foreshore* is sometimes used in Maryland case law and legal writings to refer to the lands between the lines of high and low tide, *i.e.*, tidelands, and the words *subaqueous lands* are frequently used to describe both tidelands and submerged lands.
14. Uplands owned by governmental entities abutting the shoreline of the Maryland portion of Chesapeake Bay, the Potomac and other tributary rivers extend the following linear miles along the bay's shore and the rivers' banks: Federal Government, 196 miles; state, 215; counties, cities and other local agencies, 34. Uplands along the remaining parts of the shoreline—an estimated 3,600 miles—are privately owned. Telephone conversation on Oct. 20, 1983, with Trisha Dednarz, Coastal Resource Division, Tidewater Administration, Department of Natural Resources, State of Maryland.

    Under the federal Coastal Zone Management Act of 1972, federally owned or managed lands are excluded from the Maryland coastal zone. 16 U.S.C. § 1453(a). The Aberdeen Proving Grounds, an Army installation, is among such federal lands. In *United States v. Holmes*, 414 F.Supp. 831 (D. Md. 1976), the U.S. District Court held that the Federal Government owned and had the exclusive right to possess, use and control subaqueous lands within the proving grounds despite the State of Maryland's claims of title and assertion of public rights in the lands.
15. "Ocean City . . . is typical of the recreational beach areas which are subject to extreme developmental pressure. The beach at Ocean City is of exceptional aesthetic value, yet close to some of the major urban population centers of the East. In fact, one-fifth of the Nation's total population . . . lives within [250 miles of Ocean City]." Janney, *Recreational Beaches: The Right to a Scarce Resource*, 3 U.Md. L. Forum 121 (1973) (footnote omitted). The respective rights of the public and private landowners at Ocean City have been adjudicated in the companion cases of *Dep't of Natural Resources v. Ocean City*, 274 Md. 1, 332 A.2d 630 (1975), and *Dep't of Natural Resources v. Cropper*, 274 Md. 25, 332 A.2d 664 (1975). See "Public Access Rights," *infra*.
16. Much of the shoreline of Chesapeake Bay, especially on the Eastern Shore, is characterized by salt marshes. MCMP, *supra* note 1, at 2. For a brief discussion of Maryland's 1970 Wetlands Act, 1970 Md. Laws ch. 241, codified at Md. Nat. Res. Code Ann.

§ 9-101 *et seq.* (1983), and some more localized regulations, see "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.

17. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367,408 (1842); *Kerpelman* v. *Bd. of Pub. Works*, 261 Md. 436, 445, 276 A.2d 56, 61, *cert. denied*, 404 U.S. 858 (1971). For a brief discussion of Maryland's colonial origins and early grants of tide-covered lands to private parties, see *Chesapeake Bay*, *supra* note 1, at 24-27, 83-86, 90-93. The proprietor and the colony had patented title to land under water to individuals, subject to public rights of navigation and fisheries, as early as 1663. *Casey's Lessee* v. *Inloes*, 1 Gill 430, 39 Am. Dec. 658 (Md. 1844).
18. *Browne* v. *Kennedy*, 5 H. & J. 195 (Md. 1821).
19. 1862 Md. Laws 137; this statute was formerly codified at Md. Ann. Code art. 54, § 48. See Note, *Maryland's Wetlands: The Legal Quagmire*, 30 Md. L. Rev. 240, 242 (1970). "Since the enactment of this section patents have been denied, . . . by the [state] Land Office and by the courts if the desired land was under navigable water." *Id.* at 242 n. 14 (citations omitted). See also *Chesapeake Bay*, *supra* note 1, at 93-94, 96-101 (written before current law was enacted).
20. Md. Ann. Code art. 78A, § 15 (Supp. 1982).
21. *Id.* art. 78A § 15A (Supp. 1982).
22. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
23. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975). The decision was based on *United States* v. *Texas*, 339 U.S. 707 (1950); *United States* v. *Louisiana*, 339 U.S. 699 (1950); *United States* v. *California*, 332 U.S. 19 (1947).
24. For a brief discussion of these grants of tidelands, see "Title to Lands Within the Coastal Zone," *supra*. For more detailed discussions, see *Chesapeake Bay*, *supra* note 1, at 90-94; Note, *supra* note 19, 30 Md. L. Rev. at 241-243, 244-247, 259-260.
25. *Hirsch* v. *Dep't of Natural Resources*, 288 Md. 95, 98-99, 416 A.2d 10, 12 (1980); *Caine* v. *Cantrell*, 279 Md. 392, 396, 369 A.2d 56, 58 (1977); *Van Ruymbeke* v. *Patapsco Indus. Park*, 261 Md. 470, 475, 276 A. 2d 61, 64 (1971).
26. *Id.* at 483, 276 A. 2d at 68.
27. Md. Nat. Res. Code Ann. § 9-101(m) (1983). "Private wetlands" are defined in the Wetlands Act as "any land not considered 'State wetland' bordering on or lying beneath tidal waters, which is subject to regular or periodic tidal action and supports aquatic growth." *Id.* § 9-101(j) (1983).
28. "Regular or periodic tidal action" is defined in the Wetlands Act as "the rise and fall of the sea produced by the attraction of the sun and moon uninfluenced by wind or any other circumstance." *Id.* § 9-101(k) (1983). Similar definitions are contained in orders establishing the landward boundaries of wetlands in various counties. The orders were issued by the state's secretary of natural resources under the Wetlands Act.
29. In a 1980 case construing the Wetlands Act, the Maryland Court of Appeals briefly alluded to the lower court's standard for determining the boundary, but did not address the question in any detail. *Hirsch* v. *Dep't of Natural Resources*, *supra*, 288 Md. at 118-119 n. 10, 416 A. 2d at 22 n. 10. "In an attempt to identify the mean high water line, . . . the [state's] Department [of Natural Resources] introduced testimony [at the *Hirsch* case trial] regarding vegetation, tidal activity, and soils samples at the site, as well as calculations of the contour of the land under the fill [placed in wetlands by private parties]. The [trial] court nonetheless found the state had failed to carry its burden of proof because it had established neither the *exact contours* of the site nor the degree to which the soil compacted.'" Recent Decisions, *supra* note 8, 41 Md. L. Rev. at 151-152 (footnotes omitted; emphasis in original).
30. *Giraud* v. *Hughes*, 1 G. & J. 249 (Md. 1829). This case involved the right of the littoral owner under a 1745 statute to make improvements in front of his land and thereby to acquire title to the improved land.
31. 1862 Md. Laws ch. 129, as quoted in Note, *supra* note 19, 30 Md. L. Rev. at 245 (emphasis added); this statute was formerly codified at Md. Ann. Code art. 54, § 45. The statute was repealed by the Wetlands Act of 1970.
32. Note, *supra* note 19, 30 Md. L. Rev. at 247 (footnote omitted).
33. *Ibid.*
34. 1970 Md. Laws ch. 241; this statute was formerly codified at Md. Ann. Code art. 66 C, § 718 *et seq.* (Supp. 1982), and is now codified at Md. Nat. Res. Code Ann. § 9-101 *et seq.* (1983).
35. The Wetlands Act became effective July 1, 1970. A legal commentator states that this new act "clarified the law by removing many doubts over the validity of title to land reclaimed from navigable waters," but that "landowners who [had] filled and attempted to reclaim land prior to [the act's effective date] will still have to contend with the uncertainties of the old provisions; . . ." Note, *supra* note 19, 30 Md. L. Rev. at 253 (footnote omitted).
36. Md. Nat. Res. Code Ann. § 9-201 (1983).
37. Telephone conversation on Oct. 19, 1983, with Thomas A. Deming, assistant attorney general and counsel to secretary of natural resources, State of Maryland.

    In an opinion issued in 1972, the attorney general of Maryland set forth his official views on questions relating to application of the Wetlands Act. 57 Op. Md. Att'y Gen. 445 (1972). Although this published opinion does not have the same precedential effect as do opinions of the state's highest court, it nevertheless is of considerable significance. After a detailed analysis of the relevant law in Maryland and other jurisdictions, the attorney general concluded, in part:

    "It is our opinion . . . that lands [*gradually*] submerged by the process of *erosion* would become State wetlands [*i.e.*, lands below the mean high-water line owned by the state]. On the other hand, lands inundated by water through the actions of a storm or other *natural* phenomena of a *sudden* nature would not become State wetlands. Subaqueous areas which become fast land through unlicensed *artificial* improvements, provided these improvements result in *rapid* and not imperceptible change, will not change ownership and will remain State wetlands." *Id.* at 460 (emphasis added).
38. For a brief discussion of California's unusual artificial accretion rule, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 22.
39. 274 Md. 1, 322 A. 2d 630.
40. *Id.* at 4, 332 A. 2d at 632.
41. *Id.* at 15, 332 A. 2d at 638. The severe 1962 storm generated 50-m.p.h. winds and 10- to 15-foot waves. It inundated most of Fenwick Island, on which Ocean City is located. Losses were estimated at $7 million. Janney, *supra* note 15, 3 U. Md. L. Forum at 123. See also Recent Developments, *supra* note 12, 5 U. Balt. L. Rev. at 355-356.

    In a decision involving condemnation of tracts on Assateague Island, downcoast from Ocean City, for inclusion in a national seashore, the U.S. District Court for Maryland said that this 1962 storm flooded "[t]he entire coastal areas of Maryland and Delaware, as well as parts of Virginia and New Jersey, . . . for several days . . . ," and that the "storm was of a severity which is likely to occur only twice a century, but [that] other severe storms are likely to occur with much greater frequency." *Assateague Island Condemnation Cases Opinion No. 3 (United States* v. *222.0 Acres of Land)*, 324 F. Supp. 1170, 1174 (D. Md. 1971).
42. 274 Md. at 15, 332 A. 2d at 638.
43. *Ibid.*
44. 1975 Md. Laws ch. 91; codified at Md. Nat. Res. Code Ann. §§ 8-1101, 8-1105.1 (1983). This act is a component of Maryland's Coastal Management Program. MCMP, *supra* note 1, at 11-12, 144, 162, 384.
45. Recent Developments, *supra* note 12, 5 U. Balt. L. Rev. at 370 (footnotes omitted).

    Erosion is a serious problem in Maryland, both along the Atlantic Ocean coast and within Chesapeake Bay. While man-made structures and sand replenishment have been utilized in efforts to protect the shore at Ocean City, the *Maryland Coastal Management Program* document terms beach erosion the resort community's "most important problem," noting that "the severe storms of 1977 and 1978 . . . washed away most of the sand." MCMP, *supra* note 1, at 4; see also *id.* at 153. The document also states: "Although much of the [Chesapeake] Bay's shoreline is eroding at a slow rate, approximately 140 miles of it are being lost at the rate of four feet or more per year." *Id.* at 8; see also *id.* at 153. Another report, citing a government study, declares: "Since Maryland was founded some 145 square miles of [dry] land have been lost to the Bay." *Chesapeake Bay*, *supra* note 1, at 201.

    The state's federally approved coastal program calls for giving severe erosion areas special attention, *e.g.*, identification as "State Critical Areas suitable for preservation or, in some cases, conservation." MCMP, *supra* note 1, at 300, 302-303; see also *id.* at 27, 153-162.
46. For a brief discussion of some California public trust cases, including *Marks* v. *Whitney*, 6 Cal. 3d 251, 98 Cal. Rptr. 790, 491 P. 2d 374 (1971), see *Shore and Beach*, Vol. 49, No. 2, April 1981, pp. 22-23.
47. For a brief discussion of some New Jersey public trust cases,

including *Borough of Neptune City* v. *Borough of Avon-by-the-Sea*, 61 N.J. 296, 294 A.2d 47 (1972), see *Shore and Beach*, Vol. 50, No. 2, April 1983, p. 11.

48. For a brief discussion of this legal doctrine, which was based on certain aspects of ancient Roman law and evolved at English common law, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
49. Article IV of the 1632 charter granted the lands and waters to the lord proprietor, and Article XVI contained the reservation. The pertinent portions of these provisions are quoted in *Dep't of Natural Resources* v. *Ocean City*, *supra*, 274 Md. at 10-11, 332 A.2d at 636.
50. *Chesapeake Bay*, *supra* note 1, at 92. See also *Kerpelman* v. *Bd. of Pub. Works*, *supra*, 261 Md. at 444-445, 276 A. 2d at 61.
51. Md. Const., Declaration of Rights, art. 5.
52. See, e.g., *Bd. of Pub. Works* v. *Larmar Corp.*, 262 Md. 24, 47, 277 A. 2d 427, 438 (1971); *Kerpelman* v. *Bd. of Pub. Works*, *supra*, 261 Md. at 445, 176 A. 2d at 61, *cert. denied*, 404 U.S. 858.
53. Janney, *supra* note 15, 3 U. Md. L. Forum at 131. This assertion appears to be a reference to *Browne* v. *Kennedy*, *supra*, 5 H. & J. 195, upholding grants of water-covered lands by Lord Baltimore and his heirs and successors, subject to the public rights of fishing and navigation. By an interesting coincidence, it was also in 1821 that the New Jersey Supreme Court handed down its decision in *Arnold* v. *Mundy*, 6 N. J. L. 1 (Sup. Ct. 1821), frequently cited as the first American case articulating the public trust doctrine.
54. Janney, *supra* note 15, 3 U. Md. L. Forum at 133. An even more restrictive view of the applicability of the public trust doctrine in Maryland is set forth in a 1970 student-written critique: "While the public trust question has been raised in Maryland, the Maryland Court of Appeals has not as yet sanctioned its validity." Note, *supra* note 19, 30 Md. L. Rev. at 262 (footnote omitted).
55. *Dep't of Natural Resources* v. *Ocean City*, *supra*, 274 Md. at 5-6, 332 A. 2d at 633-634.
56. *Id.* at 9-14, 332 A. 2d at 636-638.
57. The area in question, lying between the mean high-water line and the dune (or vegetation) line was owned by a developer who planned to build a four-story condominium. For a further discussion of the case and the parties' contentions, see "Public Access Rights," *infra*.
58. *Dep't of Natural Resources* v. *Ocean City*, *supra*, 274 Md. at 3, 332 A. 2d at 632.
59. The state's contention was based in part on the reservation in Article XVI of the original Charter of Maryland. As quoted by the court, this provision reserved to the crown, "and to all the subjects of our kingdoms of England and Ireland, . . . *the privilege of salting and drying fish on the shores . . .; and for that cause, . . . to build huts and cabins, . . .*" *Dep't of Natural Resources* v. *Ocean City*, *supra*, 274 Md. at 10-11, 332 A. 2d at 636 (emphasis by the court).
60. *Id.* at 11, 332 A. 2d at 637 (footnote omitted).
61. The court cited a translation of Justinian's *Institutes* stating, among other things, that both the sea and the seashore were common to mankind and that the shore could be used by any person for drying nets. *Id.* at 11-12 n. 8, 332 A. 2d at 637 n. 8.
62. *Id.* at 13, 332 A. 2d at 637.
63. In *Van Ness* v. *Borough of Deal*, 78 N.J. 174, 179, 393 A. 2d 571, 573 (1978), the New Jersey court held that the doctrine "requires that the municipally owned upland sand area adjacent to the tidal waters must be open to all on equal terms and without preference," forbidding discrimination against nonresidents of the community. The court expressly limited its opinion to municipally owned open beaches. *Ibid.*
64. *Dep't of Natural Resources* v. *Ocean City*, *supra*, 274 Md. 1, 332 A. 2d 630.
65. *Id.* at 8-14, 332 A. 2d at 635-638.

    The legal theory of *implied dedication*, in somewhat different applications, has been utilized by California and Texas courts in beach access cases to favor the public over private littoral owners. For a brief discussion of the California Supreme Court's decision in *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal. 3d 29, 465 P. 2d 50, 84 Cal. Rptr. 162 (1970), see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23. For a brief discussion of the Texas Court of Civil Appeals' opinion in *Seaway Co.* v. *Attorney General*, 375 S. W. 2d 923 (Tex. Civ. App.—Houston 1964, *writ ref'd n.r.e.*), see *Shore and Beach*, Vol. 49, No. 4, October 1981, p. 28.

    An *express intent to dedicate*, as distinguished from implied dedication, was found by a New York court in voiding a municipal ordinance designed to restrict use of a city-owned beach to local residents. For a brief discussion of *Gruntz* v. *City of Long Beach*, 69 Misc. 2d 763, 330 N.Y.S. 2d 495 (Sup. Ct. Nassau County 1972), *aff'd*, 45 App. Div. 2d 841, 358 N.Y.S. 2d 957 (2d Dep't 1974), see *Shore and Beach*, Vol. 51, No. 3, July 1983, p. 13.

    The doctrine of *custom* was utilized by the Oregon Supreme Court in ruling that the public could use the dry-sand part of the beach. For a brief discussion of *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P. 2d 671 (1969), see *Shore and Beach*, Vol. 50, No. 2, July 1982, pp. 16-17, 19-20. The Florida Supreme Court applied custom in a limited fashion. For a brief discussion of *City of Daytona Beach* v. *Tona-Rama, Inc.*, 294 So. 2d 73 (Fla. 1974), see *Shore and Beach*, Vol. 49, No. 2, July 1981, p. 16.
66. *Dep't of Natural Resources* v. *Ocean City*, *supra*, 274 Md. at 8-14, 332 A. 2d at 635-638.
67. *Id.* at 13, 332 A. 2d at 637.
68. *Id.* at 22, 332 A. 2d at 642 (Eldridge, J., dissenting).
69. *Id.* at 21-24, 332 A. 2d at 641-643 (Eldridge, J., dissenting).
70. MCMP, *supra* note 1, at 3-6, 133-134, 412-416. In 1975, shortly after the *Ocean City* decision, Maryland's legislature passed the Beach Erosion Control District Act. 1975 Md. Laws ch. 91; codified at Md. Ann. Code §§ 8-1101, 8-1105.1 (1983). Although this legislation "prohibits construction activity on much of Ocean City's shore," a student commentator has argued that the act is inadequate to protect the public's right to use the city's beaches. Recent Developments, *supra* note 12, 5 U. Balt. L. Rev. at 350, 371.
71. See "Legal Effects of Physical Changes in the Shoreline" under "Determination of Tidal Boundaries," *supra*.
72. *Harbor Island Marina* v. *Calvert County*, 286 Md. 303, 315-316, 407 A. 2d 738, 745 (1979); *Wicks* v. *Howard*, 40 Md. App. 135, 136, 388 A. 2d 1250, 1251 (Md. Ct. Sp. App. 1978).
73. Md. Nat. Res. Code Ann. § 9-201 (1983) (emphasis added).
74. *Bd. of Public Works* v. *Larmar Corp.*, *supra*, 262 Md. at 51, 277 A. 2d at 439. The previous statutory law originated in an 1862 act, which had statewide applicability; under that act, it was provided that the upland owner had "the exclusive right of making improvements into the waters in front of his said land" and that "such improvements . . . shall pass to the successive owners of the land to which they are attached." 1862 Md. Laws ch. 129. See discussion of the 1862 act in Note, supra note 19, 30 Md. L. Rev. at 245, 249-250. Two years before the 1862 law was enacted, the General Assembly in effect repealed a 1745 act, limited to Baltimore, that had conferred on upland owners the right to erect wharves and other improvements and to acquire title to the underlying land by doing so. *Id.* at 244-245. See also *Bd. of Public Works* v. *Larmar Corp.*, *supra*, 262 Md. at 37, 277 A. 2d at 432-433. The 1745 law "was obviously passed to accommodate the growing pains of a burgeoning colony. . . . Environmental factors and ecological balances were not yet the concern of the people of this new land. Their concern was the building of a bustling port on the eastern seaboard to support westward expansion of population and commerce." *Ibid.*
75. *Harbor Island Marina* v. *Calvert County*, *supra*, 286 Md. at 322, 407 A. 2d at 749.
76. Md. Ann. Code art. 78A, § 15(a), (d) (Supp. 1982). Leases are executed by the state Board of Public Works, either by itself or in conjunction with another state board, commission, department or agency. *Id.* § 15(b) (Supp. 1982). The Board of Public Works must approve every such lease or renewal of a lease. *Id.* § 8 (Supp. 1982).
77. Md. Nat. Res. Code Ann. § 9-101 *et seq.* (1983) (formerly codified at Md. Ann. Code art. 66C, § 718 *et seq.*). Under this act, the term "'wetlands' includes fully submerged land—it is not limited to marshes and the like." Note, *supra* note 19, 30 Md. L. Rev. at 252.
78. Md. Nat. Res. Code Ann. § 9-101 (m) (1983).
79. *Id.* § 9-101(j) (1983).
80. *Id.* § 9-202(a) (1983). The Board of Public Works is charged with deciding "if issuance of the license is in the best interest of the State, taking into account the varying ecological, economic, developmental, recreational, and aesthetic values each application presents." *Id.* § 9-202(c)(1) (1983).
81. *Id.* § 9-301 (1983).
82. *Id.* § 9-302 (1983).
83. *Id.* § 9-303 (1983). Among such lawful uses are the "[e]xercise of riparian rights to improve land bounding on navigable water, to preserve access to the navigable water or protect the shore against erosion" and "[r]eclamation of fast land owned by a natural person and lost [after Jan. 1, 1972] during his ownership of the

land by erosion or avulsion. . . ." *Ibid.*

84. *Id.* § 9-306.
85. 1981 Md. Laws ch. 102; codified at Md. Nat. Res. Code Ann § 9-501(e) (1983).
86. *Hirsch* v. *Dep't of Natural Resources, supra*, 288 Md. 95, 416 A. 2d 10.
87. Recent Decisions, *supra* note 8, 41 Md. L. Rev. at 137-138, 140-141. However, the owner "apparently received a warning [from the state], before or during the time wetlands were being filled, to the effect that such filling would be in violation of wetlands regulations." *Id.* at 141.
88. *Id.* at 137, 145.
89. *Potomac Sand & Gravel Co.* v. *Governor of Maryland*, 266 Md. 358, 293 A. 2d 241 (1972). The Court of Appeals ruled that the law was a valid exercise of the police power to preserve exhaustible natural resources. *Id.* at 371, 293 A. 2d at 248.
90. *Harbor Island Marina, Inc.* v. *Calvert County, supra*, 286 Md. 303, 407 A. 2d 738.
91. Md. Nat. Res. Code Ann. § 9-101 *et seq.* (1983) (formerly codified at Md. Ann. Code art. 66C, § 718 *et seq.*).
92. Md. Ann. Code §§ 8-1101, 8-1105.1 (1983).
93. Under the "networking" approach, Maryland established its Coastal Management Program by linking together existing legislative programs instead of by enacting a comprehensive new statute. MCMP, *supra* note 1, at 418, 436. However, several new laws were passed and some existing statutes were amended following the coastal program's approval.
94. Md. Nat. Res. Code Ann. § 1-102(a)(1) (1983). MCMP, *supra* note 1, at 42-43, 378. Numerous other state agencies and local governmental entities are active in carrying out the program. *Id.* at 46-57, 386-397. In addition, the Coastal Resources Advisory Committee represents local governmental program participants, citizens and various interest groups. *Id.* at 58-60, 368-369.

The Law of the Coast in a Clamshell*

Part XV: The South Carolina Approach

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It was exactly 100 years ago that the South Carolina Supreme Court commented that the state's widespread tidelands areas had been generally written off as "utterly worthless . . . property" only a few decades earlier.[1] That comment reflected widely held perceptions during the lengthy rice-plantation era.

Today, the lands and waters within South Carolina's coastal zone are highly prized for many diverse uses, including such resort and residential projects as that being developed on Kiawah Island (Fig. 1) near historic Charleston.

The Palmetto State, "blessed with vast unspoiled natural areas" because of its long pastoral plantation era and its relatively slow coastal industrial development,[2] boasts 26 percent of the unreclaimed tidelands acreage remaining along the Atlantic Ocean, more than any other East Coast state.[3] Perhaps this is why South Carolina was the last state on that coast to enact a wetlands protection law.[4]

The South Carolina Coastal Management Program, based on the state's 1977 Coastal Zone Management Act,[5] articulates ambitious goals and objectives for this valuable zone, which includes a 1,241-mile shoreline.[6] That program seeks "to balance the needs created by burgeoning populations and concomitant development against those for preservation of the environment."[7]

TITLE TO LANDS WITHIN THE COASTAL ZONE

South Carolina's coastal zone encompasses "all coastal waters and submerged lands seaward to the State's jurisdictional limits and all lands and waters in [eight] coastal counties. . . ."[8] The Coastal Council, which administers the state's coastal management program,[9] "has determined the approximate geographic extent of its jurisdiction . . .; the [landward] boundary line generally corresponds to that point in the coastal zone where vegetation changes from predominantly brackish to predominantly fresh."[10]

Lands within the coastal zone may be legally classified as uplands, tidelands and submerged lands.[11]

A. Uplands

Private parties own most uplands adjoining South Carolina's coastal waters.[12] However, the state exercises regulatory control over private parties who wish to "fill, remove, dredge, drain or erect any structure on or in any way alter any critical area" within the coastal zone.[13]

B. Tidelands

Tidelands in South Carolina[14] have been known by many names: salt marsh, tidal marsh, estuarine land, foreshore, intertidal zone[15] and, perhaps most persistently, "marshlands."[16]

Tidelands ownership rules, in general, may be summarized as follows: The state is legally presumed to own all ungranted tidelands in South Carolina,[17] but this presumption may be rebutted. Private parties may prove their claims by showing unbroken chains of titles originating in colonial or state grants that contain express language or other evidence specifically manifesting the sovereign's intent to convey lands down to the low-water mark.[18]

However, this may be too simplistic a summary of an extremely complex situation. As a knowledgeable lawyer in the state's attorney general's office succinctly wrote in 1982:

> ". . . South Carolina tidelands law is still very much in a state of flux and uncertainty. With no [additional] legislation likely to be enacted to address the problems presented, the next few years of litigation may provide a much more definitive framework in which all concerned can operate."[19]

The state's Coastal Zone Management Act of 1977 provides that private tidelands claimants can sue the state to establish their title to or interest in such lands,[20] but the impact of this provision is still in doubt.

To appreciate the complexity of the state's tidelands ownership puzzle—which involves more than just the confusing semantic quagmire alluded to above—some historical background is helpful. For convenience, South Carolina's coastal chronology can be divided into several stages: (1) the rice-growing era (circa 1700-

This is the 15th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of South Carolina concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. *© 1984 by Peter H. F. Graber. The author also asserts copyright protection for the first 14 articles in this series.*

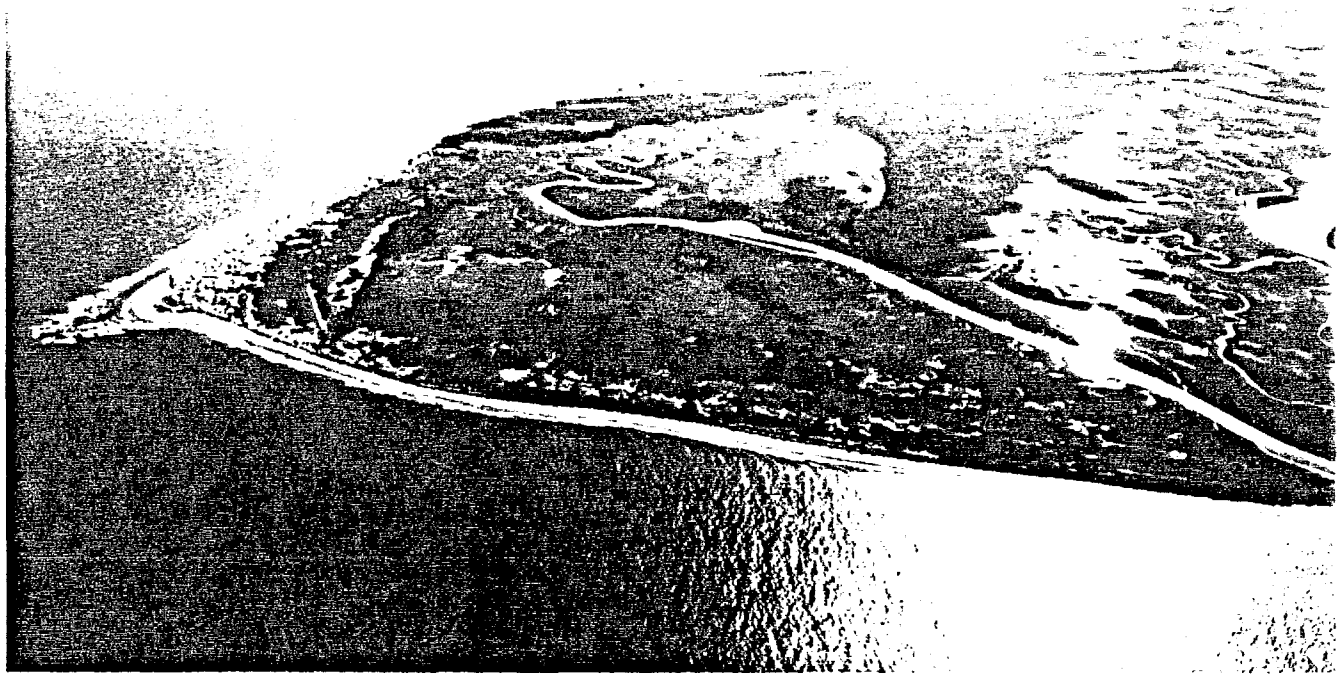

Fig. 1 Aerial photograph looking southward of Kiawah Island, South Carolina, an area being developed as a planned resort and residential community. (Photograph by courtesy of Kiawah Island Co.)

circa 1860); (2) the tidelands phosphate-mining period (circa 1865-circa 1900); and (3) the 20th century, with more diversified usage.[21]

Rice was South Carolina's first great plantation crop; it generally flourished in the tidelands, but not in that portion where the level of salinity was too high.[22] Rice plantations in the coastal lowlands originated during the colony's early days. The lands within the state's present boundaries were administered until 1712 by the lord proprietors and thereafter, until the American Revolution, by the English crown, through the royal governors.[23] These colonial authorities "granted extensive tracts of low country land to private persons; after the Revolution, the state assumed and exercised this power."[24]

Although "[n]o South Carolina case in the rice-growing era presented a question of title between the State and private interests, [i]t has been strongly asserted that the statutes of the era, as well as the grants and a few private cases, are abundant with evidence that tidelands were routinely granted, taxed, and, where possible, used for agriculture."[25]

The 1885 *Pinckney* case[26] involved one of the first great disputes over tidelands between the state and private claimants. The case, which arose after the discovery "that phosphatic rock, useful as fertilizer, could be mined in the vicinity of South Carolina's tidelands," involved grants dating back to 1787.[27] The court held that the state owned these phosphate-rich tidelands.[28]

Between 1887 and 1927 no cases concerning phosphates in tidal-flowed lands arose between the state and private interests in which the courts specifically discussed the title issue. However, that era's cases do assume in dicta (language unnecessary for the decision) that the state was empowered to grant tidelands into private ownership.[29]

Then, in 1928, the landmark *Cape Romain*[30] decision was handed down. As one legal authority said: "[A]lthough the case did not directly involve the State as a party, [*Cape Romain*] contains the most sweeping statements in favor of the State ever uttered by the South Carolina Supreme Court in a tidelands case."[31] The plaintiff claimed that it had a valid chain of title, based on seven sovereign grants, to 34,000 acres of oyster grounds; the defendant alleged a right to use the grounds under a state oyster lease. The court, declaring that great specificity was required by a private claimant seeking to prove the state's intent to convey tidelands, found that the plaintiff's evidence was not sufficiently specific.[32]

In *Cape Romain*, the court ruled, among other things, that the use of the word "marsh" in a sovereign grant did *not* reflect the state's specific intent to convey tidelands because "[w]hile a marsh is land usually wet and soft and commonly covered wholly or partly with water and is often referred to as a swamp, it is also known as a meadow which remains green during the dry seasons."[33]

The 1968 *Lane* case[34] seemed to establish that the crown and the state could grant tidelands to private parties. But the precedential value of the decision may be dubious; as a state attorney noted, the state had "effectively conceded that the area in question consisted only of tidelands and that it was in fact granted by the Crown in 1734."[35]

C. Submerged Lands

The 1953 Submerged Lands Act[36] confirmed South Carolina's title to submerged lands within 3 geographical miles of the coast. A 1975 United States Supreme Court decision rejected the claim by this and other Atlantic Coast states to "dominion and control" over the zone seaward of the 3-mile limit.[37]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Except where abutting parcels of tidelands are privately owned, the waterward property boundary of South Carolina's coastal uplands is, in general, the mean high-water mark.[38] However, the state's appellate courts have not fully explained the manner in which the littoral boundary should be located on the ground. For example, in the 1885 *Pinckney* case, the Supreme Court characterized the high-water mark as "that line (*whatever it may be*)."[39] And in the 1928 *Cape Romain*[10] decision, the court simply said that "the high-water mark" is the boundary of a tidal navigable stream, and only briefly touched on the meaning of that legal term.[41]

Recent legislation does employ the technically precise phrase "*mean* high-water mark" (line), implying the use of a tidal datum as the elevation of high water. See, *e.g.*, the definition of "coastal waters" in the South Carolina Coastal Zone Management Act of 1977.[42]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Traditionally, South Carolina law has recognized that the legal boundary between private uplands and adjoining sovereign tidal-flowed lands is subject to fluctuation as a result of accretion and erosion, *i.e.*, gradual, imperceptible physical changes.[43] This is consistent with the usual common-law rule.[44]

However, a provision in the state's coastal management law purports to alter that rule with respect to ownership of accreted land. It empowers the Coastal Council to "issue permits for erosion control structures" but adds several provisos:

> ". . . *Provided*, however, that no property rebuilt or accreted as a result of *natural* forces or as a result of a permitted structure shall exceed the *original* property line or boundary. *Provided*, further, that no person or governmental agency may develop ocean front property accreted by *natural* forces or as the result of permitted or nonpermitted structures beyond the mean high water mark *as it existed at the time the ocean front property was initially developed or subdivided*, and *such property shall remain the property of the State* held in trust for the people of the State."[45]

One legal commentator said that "[t]hose who revel in statutory interpretation are invited to consider the meaning of this provision. . . . Whether this provision passes all accreted lands to the State or only those resulting from development or subdividing is unclear."[46]

It is interesting to speculate about the possibility that the courts ultimately might construe this provision as an adoption by South Carolina's legislature of the unusual California artificial accretion rule. Under that rule, the state (or its public tidelands grantee, *e.g.*, a coastal municipality), as owner in trust of the tidelands, acquires title to all *artificially* accreted lands.[47]

In most states, when a private upland owner is *not* directly responsible for the artificial condition that causes the shoreline to move seaward, he becomes the owner of the newly created land.[48] This general proposition is qualified in many jurisdictions,[49] including South Carolina,[50] to preclude a private party from acquiring title to new land that he himself creates by filling tidal waters.[51] It remains to be seen if this provision will be interpreted so as to pass title to *all* artificially accreted land to the state regardless of whether the upland owner was solely responsible for its creation.[52]

Like many other coastal states, South Carolina faces erosion problems. The state's coastal management law mandates the Coastal Council to address these problems.[53] A prime objective of the council's program is to develop and institute "a comprehensive beach erosion policy that identifies critical erosion areas, evaluates the long-term costs and benefits of erosion control techniques, seeks to minimize the effects on natural systems (both biological and physical), and avoids damages to life and property."[54]

The state's published management program specifically identifies "highly eroding" beach areas, *i.e.*, those with short-term changes of more than 5 meters annually.[55] In addition, the program devotes 10 pages to a detailed discussion of the council's erosion control program, which recognizes the importance of both structural methods and nonstructural approaches, such as artificial beach nourishment.[56]

Significantly, use of the various methods is linked in the state's published program to their effect on public beach and shoreline access.[57] For example, the document provides that "[p]ublic funds can only be expended for beach or shore erosion control in areas, communities or on barrier islands to which the public has full and complete access."[58]

SOUTH CAROLINA'S PUBLIC TRUST DOCTRINE

The public trust doctrine—a common-law principle rooted in ancient Roman civil law[59]—has not been clearly and expansively applied by South Carolina's courts. But in many cases, the courts have indicated, almost as an aside, that tidal-flowed lands are held in trust for the public.[60]

State law clearly provides that those areas lying below the mean low-water line—that is, perpetually submerged lands—are impressed with the trust.[61] The differences of opinion among legal scholars focus on whether the trust attaches to the tidelands, *i.e.*, the periodically tide-flowed lands located between the lines of mean high water and mean low water.

In 1962 a former state legislator wrote an exhaustive legal analysis of the previously mentioned *Cape Romain* decision in which the state Supreme Court said:

> ". . . The title to land below high-water mark on tidal navigable streams, under the well-settled rule, is in the State, not for the purpose of sale, but *to be held in trust for public purposes*."[62]

Pointing out that this public trust language was unnecessary to the decision (and hence dictum), the ex-legislator criticized both that decision and the subsequent *Rice Hope* case,[63] which had favorably quoted the *Cape Romain* language. He wrote:

> ". . . The public under those *dicta* was the beneficiary of a trust suddenly broadened from lands below *low* water mark to lands below *high* water mark. . . .
>
> "It was not necessary to decide in the *Cape Romaine* [*sic*] case that titles to all marshlands [tidelands] be unsettled by declaring all marshlands to be soil under navigable streams and thereby impressed with a newly discovered trust for the public. . . .
>
> ". . .
>
> "It is one thing to require that soil under navigable waters be held subject to the public use. It is quite another to extend the trust, as a matter of law, to marshlands, and thereby to deny the right of ownership to persons having possession and claiming under solemn grants. . . ."[64]

The former legislator's views were controverted in 1978 by another legal commentator, who argued that tidelands are subject to the public trust.[65] He did concede, however, that the statement quoted above from the *Cape Romain* case about the geographic extent of the public trust "has attracted a storm of controversy among attorneys, judges, and citizens" in the state.[66]

This commentator, attempting to "demonstrate that a tidelands trust in South Carolina does exist," based his opinion on a detailed review of common law, the state's Constitution, case law and statutes.[67] Admitting that some tidelands had been conveyed into private ownership, he contended that such lands nonetheless remain impressed with the public trust; similarly, while agreeing that the controversial *Cape Romain* language was dictum, he pointed out that the state's high court had expressly reaffirmed that language in the later Rice Hope[68] and *Hardee*[69] cases. He concluded:

> ". . . In neither case did the court take the opportunity to change the language used in *Cape Romain*. Moreover, in *Hardee*, the court described the *Cape Romain* statement as the rule which had been 'reaffirmed in the *Rice Hope Plantation* case.' *It is now clear that the court considers both the tidelands and the submerged lands as property subject to the public trust*."[70]

Besides fishing and navigation, are other types of public activities embraced within the public trust doctrine in South Carolina?

As a legal commentator put it: "Unfortunately, the [state] Supreme Court has never had the opportunity to define and to explain fully the scope, nature, and limitations of the tidelands trust in this state."[71] In his opinion, "there should be no objection to extending the *jus publicum* [the paramount right of the public in lands subject to the public trust] to include additional purposes . . . [and as] custodian and trustee of the tidelands, the state should be deemed to hold and administer them in accordance with the changing needs of the public."[72]

PUBLIC ACCESS RIGHTS

Unlike such states as Oregon[73] and Washington,[74] where turn-of-the-20th-century laws opened their respective coasts by designating them as "public highways," South Carolina historically has not encouraged public access to the seashore. Nor have the state's courts bolstered coastal access by invoking such legal doctrines as implied dedication and custom, which have been used by other jurisdictions.[75]

South Carolina's legislature—the General Assembly—addressed public access concerns in 1977 by passing the Coastal Zone Management Act.[76] The state's 150 miles[77] of sandy beaches along the Atlantic are classified as "critical areas"[78] under this law, meriting special attention by the Coastal Council.[79] The council, while planning and implementing beach erosion control policies, is expressly directed to preserve beaches for public use and access.[80]

Under rules and regulations adopted by the council in 1978, "[t]he extent to which [a proposed] development could affect existing public access to tidal and submerged lands, navigable waters and beaches, or other recreational coastal resources"[81] must be taken into consideration in deciding whether to approve a permit application.

Beach and shoreline access issues are treated extensively in the South Carolina Coastal Management Program. Among the many access policies: "The . . . Coastal Council fully endorses and will support, further, and encourage the protection and, wherever feasible, the expansion of public access to shoreline areas in the coastal zone."[82]

PRIVATE LITTORAL RIGHTS

Private landowners along South Carolina's coast still enjoy many traditional littoral rights, but some constraints recently have been imposed under the state's coastal management law and program.

For example, although a private upland owner's direct access to adjoining tidal waters is assured as a result of his right to *naturally* caused accretions, a question may arise as to whether he is entitled to unfettered access when there is *artificially* accreted intervening land.[83] Similarly, while a private littoral owner still does not need to pay the state to use the adjoining state-owned tide and submerged lands for his private dock or pier and for erosion control measures, he must comply with pertinent rules and regulations.[84]

However, the coastal management program discourages private upland owners from developing and keeping certain types of impoundments, *i.e.*, wetland areas diked off from adjacent tidal rivers and estuaries.[85] Historically, most coastal impoundments in South Carolina were originally used for rice cultivation; although many of these impoundments have

fallen into disrepair, some have been maintained to attract waterfowl for recreational hunting.[86]

The Coastal Council's rules, while not encouraging impoundment of previously undisturbed saline and brackish water marshes, favor the rediking and embankment repair of former impoundments rather than impounding currently undisturbed areas.[87]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

South Carolina's coastal zone leasing activities are relatively limited when compared with those of other states, although there are a number of oyster cultivation and phosphate mining leases.[88]

A statutory scheme provides that state-owned tide and submerged lands may be leased for the exploration and extraction of oil and gas or other minerals.[89] In addition, the state Wildlife and Marine Resources Department is empowered to lease submerged lands capable of producing shellfish, both commercially (with a 1,000-acre limit) and privately or noncommercially (with a 2-acre limit and preferences being given abutting upland owners).[90]

B. Regulatory Functions

Under the state's Coastal Zone Management (CZM) Act of 1977,[91] South Carolina intensively regulates a multitude of activities within coastal zone lands and waters.[92] Passage of this measure eliminated nearly a decade's legislative effort to "enact a law that would enable the State to resolve the conflicting demands being made upon [its] coastal resources."[93]

In general, anyone desiring to "fill, remove, dredge, drain or erect any structure on or in any way alter any critical area"[94] within the coastal zone must obtain a permit from the Coastal Council created by the state's CZM Act.

The council, however, has direct permit-issuing authority only within the four types of statutorily defined "critical areas."[95] Moreover, the council has restrictively interpreted the geographic scope of its authority,[96] and many specific activities are statutorily exempted from the council's permit process.[97] Additional regulatory functions are performed by various other state and local agencies under a "networking" approach.[98]

The South Carolina Coastal Management Program, developed by the Coastal Council under the state CZM Act, gained Federal Government approval in September 1979. Under the program's two-tier management approach, "noncritical areas" are only directly affected by the council's directives.

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REFERENCES

1. *State* v. *Pacific Guano Co.*, 22 S.C. 50, 66 (1884).
2. *State of South Carolina Coastal Management Program and Final Environmental Impact Statement* I-1 (1979) [hereinafter cited as SCCMP].
3. Woodington, *South Carolina Tidelands Law* 1 (1982). See also SCCMP, *supra* note 2, at I-13; Wyche, *Tidelands and the Public Trust: An Application for South Carolina*, 7 Ecology L.Q. 137, 138-139 (1978).
4. Note, *The South Carolina Coastal Zone Management Act of 1977*, 29 S.C.L. Rev. 666 (1978). All other Atlantic Seaboard states had passed coastal wetlands regulatory laws by 1972. *Ibid.*
5. 1977 S.C. Acts 123; codified at S.C. Code Ann. §48-39-10 *et seq.* (Cum. Supp. 1983). For a brief discussion of the act, see "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
6. Of this total shoreline, 281 miles are on the mainland and 960 miles are around islands. SCCMP, *supra* note 2, at I-27.
7. *Id.* at I-1.
8. S.C. Code Ann. §48-39-10(B) (Cum. Supp. 1983). These coastal counties, enumerated in the South Carolina Coastal Zone Management Act, "contain any one or more of [the physical features referred to as] the critical areas." *Ibid.* The act defines a "critical area" as "any of the following: (1) coastal waters, (2) tidelands, (3) beaches and (4) primary ocean front sand dunes." *Id.* §48-39-10(J) (Cum. Supp. 1983). Each of these four types of "critical areas" is defined in the act. *Id.* §48-39-10(F), (G), (H), (I) (Cum. Supp. 1983).
9. *Id.* §48-39-50 (Cum. Supp. 1983).
10. Note, *supra* note 4, 29 S.C.L. Rev. at 671.
11. This classification is used for convenience and consistency with other articles in this series. It should be noted, however, that this series defines the term *tidelands* somewhat differently than do some South Carolina statutes, cases and legal writers. In this series, the term is used to refer to those lands lying between the lines of mean high water and mean low water. In South Carolina, the word *marshlands* is frequently used synonymously with *tidelands*, especially in early cases. For a brief discussion of South Carolina usage, see notes 14-16 *infra* and accompanying text.
12. SCCMP, *supra* note 2, at I-47-I-52. It is estimated that various governmental entities own approximately 30% of the state's Atlantic Ocean shoreline or beach areas, including the adjoining upland shorefront. *Id.* at IV-63; telephone conversation on Jan. 30, 1981, with Newman J. (Jack) Smith, attorney, South Carolina Coastal Council.
13. The words *highlands* and *uplands* are sometimes used synonymously in South Carolina law. See, *e.g.*, S.C. Code Ann. §48-13-30(B)(1)(*l*) (Cum. Supp. 1983) (oil and gas exploration permits).
14. In most American jurisdictions, it is generally recognized, both from the technical and the legal standpoint, that the term *tidelands* refers to lands lying between the lines of mean high water (tide) and mean low water (tide). In South Carolina, however, the word *tidelands*

may also embrace lands legally classified as uplands in many other states. This is due, in part, to the fact that South Carolina's legislators have defined "tidelands" so as to include both (1) lands *below* the mean high-water mark *and* (2) also certain areas *above* that line. Wyche, *supra* note 3, 7 Ecology L.Q. at 158 & n. 143.

The South Carolina Coastal Zone Management (CZM) Act of 1977 defines "tidelands" to mean, among other things, "all areas which are at or below mean high tide and coastal wetlands, mudflats, and similar areas that are contiguous or adjacent to coastal waters and are an integral part of the estuarine systems involved." S.C. Code Ann. §48-39-10(G) (Cum. Supp. 1983).

The act defines "coastal wetlands" as including "marshes, mudflats, and shallows" and as meaning "those areas periodically inundated by saline waters whether or not the saline waters reach the area naturally or through artificial water courses and those areas that are normally characterized by the prevalence of saline water vegetation capable of growth and reproduction." *Ibid.*

The state CZM Act's lengthy definition of "tidelands" also contains some additional qualifications and rules of interpretation, including a proviso that the Coastal Council may "designate [the] approximate geographic extent" of the defined tidelands pending a scientific determination of "the exact geographic extent of this definition." *Ibid.*

Following the CZM Act's passage, the council, "[w]ith biological field surveys and aerial photography, . . . found the point on the upper reaches of the estuarine systems where tideland vegetation changes from predominantly brackish to predominantly fresh and . . . established a coastal water and tideland boundary using the nearest recognizable physical features within the area." S.C. Coastal Council, *Guidelines and Policies of the S.C. Coastal Management Program* 4 (1982). Administratively, the council promulgated rules and regulations setting forth this landward boundary. See 23A S.C. Code Ann. Rule 30-10A(1) (Cum. Supp. 1983).

In sum, therefore, an enormous area of South Carolina may be legally characterized as "tidelands" for either title purposes or regulatory purposes, or both; such "tidelands" may embrace swampy and similar lands that are treated as privately owned uplands in most other jurisdictions. The geographic extent of "tidelands," as thus defined by the state's CZM Act, is vast. "South Carolina contains some 504,445 acres of coastal marshes, *more than any other Atlantic coast state*. Of this amount, 334,501 acres are classified as salt marsh." SCCMP, *supra* note 2, at I-13 (emphasis added).

15. Wyche, *supra* note 3, 7 Ecology L.Q. at 137 n. 2.
16. In two voluminous law review articles 22 years ago, John Miles Horlbeck, a former member of the South Carolina House of Representatives, exhaustively explored "the history and status of the ownership" of what he referred to as "marsh or tide lands" in that state. Horlbeck, *Titles to Marshlands in South Carolina*, 14 S.C.L.Q. 288 (pt. 1) (1962); 14 S.C.L.Q. 335 (pt. 2) (1962).

    He stated: "'Marshlands' is a term used herein synonymously with 'tidelands,' because *most of the South Carolina cases use the word 'marshlands,'* although the word 'shore' or 'shorelands' has been used to mean 'tidelands.'" *Id.*, 14 S.C.L.Q. at 290 (emphasis added). See also *id.* at 296 (colonial and state grants sometimes referred to "marsh lands," "broken islands and marshes," "rush lands," "low lands," "sands" and "marshes").

    In general, Horlbeck used the term *marshlands* while vigorously asserting that the state (or its predecessors) had conveyed large tracts of tidelands into private ownership. See, *e.g.*, *id.* at 358-364. His assertion is supported somewhat by a state lawyer: "In South Carolina, [the privately held] tidelands are generally owned in rather large parcels, often by descendants of the original plantation owners." Woodington, *supra* note 3, at 3.
17. See, *e.g.*, Wyche, *supra* note 3, 7 Ecology L.Q. at 142-145, 147, 169; Note, *supra* note 4, 29 S.C.L. Rev. at 667-669, 685-686, 702. For an excellent discussion of this legal presumption that the state has *prima facie* title to tidelands as sovereign lands, see generally Woodington, *supra* note 3. This paper, by a senior assistant attorney general of the State of South Carolina, was presented at a tidelands seminar sponsored by the University of Baltimore School of Law and others during October 1982.
18. Woodington, *supra* note 3, at 1-2. However, during the 1970s the South Carolina Supreme Court "began to find more ways in which such intent could be proven, thus eroding the *prima facie* rule to some extent." *Id.* at 2. See also Wyche, *supra* note 3, 7 Ecology L.Q. at 142-145, 147, 169; Note, *supra* note 4, 29 S.C.L. Rev. at 667-668, 702.

    Horlbeck, while conceding that doubts have arisen about what he calls "marshlands titles," nevertheless contends that South Carolina law upholds the validity of private ownership of such lands. See, *e.g.*, Horlbeck, *supra* note 16, 14 S.C.L.Q. at 289, 294-298, 315-316, 333, 359-360, 362-364.

    For further discussions, see Clineburg & Krahmer, *The Law Pertaining to Estuarine Lands in South Carolina*, 23 S.C.L. Rev. 7 (1971); Logan & Williams, *Tidelands in South Carolina: A Study in the Law of Real Property*, 15 S.C.L. Rev. 657 (1963).
19. Woodington, *supra* note 3, at 21.
20. "The General Assembly [legislature] included section 22 in the 1977 [CZM] Act in an effort to accommodate the [then] Governor's objections" about the lack in the previously vetoed 1976 coastal zone bills "of a provision aimed at protecting the rights of private claimants to the tidelands." Note, *supra* note 4, 29 S.C.L. Rev. at 685 (footnotes omitted). Section 22 in the 1977 law is codified at S.C. Code Ann. §48-39-220 (Cum. Supp. 1983). But see *id.* §§48-39-190, 48-39-220(C) (Cum. Supp. 1983).

    As Wyche asserted: ". . .*[T]here is nothing in section 22* or in the [1977 CZM] Act *that alters or in any way affects the rule that the State is presumptively the owner of all lands below the mean high-water mark.*" Note, *supra* note 4, 29 S.C.L. Rev. at 686 (emphasis added; footnote omitted). See also *id.* at 702.
21. Woodington, *supra* note 3, at 1, 4-19. These are not hard-and-fast eras, however; some phosphate mining, for instance, still takes place in coastal areas.
22. *Id.* at 1.
23. R. Powell, *The Law of Real Property*, ¶¶60, 63, pp. 188, 191-197, 214-216 (1981); Wyche, *supra* note 3, 7 Ecology L.Q. at 142.
24. *Id.* at 142-143 (footnote omitted). Private land titles derived from proprietary grants have been legislatively validated. *Id.* at 142 n. 40.
25. Woodington, *supra* note 3, at 4 (citations omitted).
26. *State* v. *Pickney*, 22 S.C. 484 (1885). In an 1884 case, *State* v. *Pacific Guano Co.*, *supra*, 22 S.C. 50, the court upheld, in general, the state's ownership of submerged lands in tidal channels.
27. Woodington, *supra* note 3, at 4-5.
28. 22 S.C. at 507. However, the court upheld private ownership of a prior grant of 120 acres of tidelands. *Id.* at 498-499.
29. Woodington, *supra* note 3, at 8-9.
30. *Cape Romain Land & Imp. Co.* v. *Canning Co.*, 148 S.C. 428, 146 S.E. 434 (1928).
31. Woodington, *supra* note 3, at 9.
32. *Id.* at 10.
33. *Cape Romain Land & Imp. Co.* v. *Canning Co.*, *supra*, 148 S.C. at 436, 146 S.E. at 437. For a brief discussion of the case, see Recent Comment, 7 N.C.L. Rev. 479 (1929).
34. *Lane* v. *McEarchern*, 251 S.C. 272, 162 S.E. 2d 174 (1968).
35. Woodington, *supra* note 3, at 13. In recently decided subsequent cases involving tidelands titles, the state has won four and lost three. *Id.* at 14-19.
36. 67 Stat. 29; codified at 43 U.S.C. §1301 *et seq.*
37. *United States* v. *Maine*, 420 U.S. 515 (1975).

38. Horlbeck, *supra* note 16, 14 S.C.L.Q. at 290 ("'mean high water mark' or 'high water mark' is the point reached at the height of an ordinary high or flood tide"). Wyche, *supra* note 3, 7 Ecology L.Q. at 137 n. 3, citing with favor *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10, 26-27 (1935), in which the U.S. Supreme Court "approved the generally accepted definition of mean high water mark as 'the average height of all the high waters over . . . a period of 18.6 years.'"
39. *State* v. *Pickney, supra*, 22 S.C. at 511 (emphasis added).
40. *Cape Romain Land & Imp. Co.* v. *Canning Co., supra*, 148 S.C. at 436-437, 146 S.E. at 437.
41. For a brief discussion of the semantic problems surrounding the nontechnical legal phrase "ordinary high-water mark," which originated at English common law, and the U.S. Supreme Court's 1935 *Borax* decision equating that term with the technically defined "line of mean high tide" (water), see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18.
42. S.C. Code Ann. §48-39-10(F) (Cum. Supp. 1983). See also *id.* §48-39-10(G) (Cum. Supp. 1983), defining, in part, "tidelands" as "all areas which are at or below mean high tide."
43. *Intendant & Wardens* v. *Charleston & W. C. Ry. Co.*, 136 S.C. 525, 134 S.E. 497 (1926); *Spigener* v. *Cooner*, 42 S.C.L. (8 Rich.) 301 (1855).
44. For a brief explanation of the common-law rule, see *Shore and Beach*, Vol. 50, No. 2, July 1982, p. 15.
45. S.C. Code Ann. §48-39-120(B) (Cum. Supp. 1983) (emphasis added except for words "*Provided*").
46. Note, *supra* note 4, 29 S.C.L. Rev. at 684. That commentator added: "The constitutionality of the provision may depend upon the construction adopted. The provision is probably unconstitutional to the extent that it purports to change existing law and pass to the State lands that accreted *prior* to passage of the [state's CZM] Act. . . . The provision might withstand constitutional attack, however, if it means that the State acquires title only to those lands that accrete *after* enactment of the law." *Ibid.* (Emphasis added; footnotes omitted.)
47. For a brief discussion of the unusual California artificial accretion rule, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 22.
48. Maloney & Ausness, *The Use and Significance of the Mean High Water Line in Coastal Boundary Mapping*, 53 N.C.L. Rev. 185, 225 (1974).
49. See Annot. 134 A.L.R. 467, 472 (1941).
50. *Epps* v. *Freeman*, 261 S.C. 375, 200 S.E. 2d 235 (1973).
51. To date, it appears that South Carolina appellate courts have not ruled on this particular issue. One legal commentator wrote that a ruling could arise in a lawsuit in which the state argues ". . . that it acquires all lands that have accreted as a result of development or subdividing, even though the owner on whose property the accretion happens to occur is not responsible therefore [*sic*]." Note, *supra* note 4, 29 S.C.L. Rev. at 685 n. 119. To be more technically precise, that commentator probably meant to refer to the private owner of the adjacent littoral or riparian parcel *to which* the accreted land ultimately becomes attached; such accreted land, also referred to in the law as alluvion, would actually begin forming on the abutting tidelands, which generally are owned in trust by the state rather than by private parties. See "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
52. U.S. Dep't of Interior, *Report of the Barrier Island Work Group* (1978), as cited in Note, *Barrier Islands: The Conflict Between Federal Programs That Promote Preservation and Those That Promote Development*, 33 S.C.L. Rev. 373 (1981).
53. S.C. Code Ann. §48-39-120(A) (Cum. Supp. 1983).
54. SCCMP, *supra* note 2, at IV-52-53.
55. *Id.* at IV-53.
56. *Id.* at IV-51-60.
57. *Id.* at IV-62, IV-66, IV-67, IV-69.
58. *Id.* at IV-64.
59. For a brief discussion of the public trust doctrine, which relates to the public's rights of navigation and fishing in tidal waters, see *Shore and Beach*, Vol. 48, No. 4, October, 1980, pp. 18-19.
60. See, *e.g.*, *State* v. *Hardee*, 259 S.C. 535, 193 S.E.2d 497 (1972); *Rice Hope Plantation* v. *S.C. Pub. Serv. Auth.*, 216 S.C. 500, 59 S.E. 2d 132 (1950); *Cape Romain Land & Imp. Co.* v. *Canning Co., supra*, 148 S.C. 428, 146 S.E. 434. A state constitutional provision requires navigable waters to remain public highways free to the citizens. S.C. Const. art. 14, §4 (1976). See also S.C. Code Ann. §49-1-10 (Cum. Supp. 1983) (navigable streams and watercourses are common highways).
61. See, *e.g.*, Wyche, *supra* note 3, 7 Ecology L.Q. at 139, 153.
62. *Cape Romain Land & Imp. Co.* v. *Canning Co. supra*, 148 S.C. at 438, 146 S.E. at 438 (emphasis added).
63. *Rice Hope Plantation* v. *S.C. Pub. Serv. Auth., supra*, 216 S.C. 500, 59 S.E. 2d 132.
64. Horlbeck,*supra* note 16, 14 S.C.L.Q. at 362-364 (emphasis added).
65. Wyche, *supra* note 3, 7 Ecology L.Q. at 139, 169; see also Note, *supra* note 4, 29 S.C.L.R. at 693, 703.
66. Wyche, *supra* note 3, 7 Ecology L.Q. at 155.
67. *Id.* at 139, 141-158.
68. *Rice Hope Plantation* v. *S.C. Pub. Serv. Auth., supra*, 216 S.C. 500, 59 S.E. 2d 132.
69. *State* v. *Hardee, supra*, 259 S.C. 535, 193 S.E.2d 497.
70. Wyche, *supra* note 3, 7 Ecology L.Q. at 156 (footnote omitted; emphasis added).
71. *Id.* at 169.
72. *Id.* at 170.
73. For a brief discussion of Oregon's 1899, 1913 and other early coastal "public highway" laws, as well as that state's comprehensive 1967 Beach Law, see *Shore and Beach*, Vol. 50, No. 3, July 1982, pp. 16-17, 19-20, 21, 22, nn. 2, 4, 17, 18, 20, 49, 50, 51.
74. For a brief discussion of Washington's 1901 coastal "public highway" law and its expansive 1963 coastal "public recreation area" act, see *Shore and Beach*, Vol. 51, No. 2, April 1983, pp. 18, 20, nn. 56, 57.
75. For brief discussions of the application of various legal concepts by some other states' courts, see the following articles in this series in *Shore and Beach*: Vol. 49, No. 2, April 1981, p. 28 (California; implied dedication); Vol. 49, No. 4, October 1981, p. 28 (Texas; implied dedication); Vol. 49, No. 3, July 1981, p. 16 (Florida; custom); Vol. 50, No. 3, July 1982, pp. 16-17, 19-20 (Oregon; custom).
76. S.C. Code Ann. §48-39-10 *et seq.* (Cum. Supp. 1983).
77. Various authorities disagree on the total mileage of the state's beaches. For example, the *South Carolina Coastal Management Program* document states that there are "158 miles of Atlantic Ocean shoreline." SCCMP, *supra* note 2, at IV-61. A student law review note says that there are "187 miles of oceanfront beach." Note, *Which Way to the Beach? Public Access to Beaches for Recreational Purposes*, 29 S.C.L. Rev. 627, 654 (1978) (footnote omitted).
78. S.C. Code Ann. §48-39-10(B), (H), (J) (Cum. Supp. 1983).
79. See, *e.g.*, *id.* §§48-39-30(D), 48-39-40, 48-39-50(L), (M), 48-39-80, 48-39-130(D)(5), 48-39-150(A)(5) (Cum. Supp. 1983).
80. *Id.* §48-39-120(A), (B), (D), (E) (Cum. Supp. 1983).
81. 23A S.C. Code Ann. Rule 30-11B(5) (Cum. Supp. 1983).
82. SCCMP, *supra* note 2, at IV-64.
83. See "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*. As pointed out there, some uncertainty exists about the legal effect of a 1977 statutory provision that purports to alter the general rule with respect to ownership of *artificially* accreted property.
84. See *The Programs of Coastal States for the Leasing of Submerged Lands*, a Report to S.C. Coastal Council Comm. on Leasing of Submerged Lands, 13 (1983). However, Coastal Council rules and regulations set forth specific standards for docks and piers in coastal waters. 23A S.C. Code Ann. Rule 30-12A (Cum. Supp. 1983).

85. SCCMP, *supra* note 2, at III-52.
86. *Id.* at III-52-53. See also "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
87. 23A S.C. Code Ann. Rule 30-12K(2) (Cum. Supp. 1983). See also SCCMP, *supra* note 2, at III-53-54.
88. An official 1983 state report comments: "South Carolina exerts [relatively] little control over the use of its submerged lands compared to some other coastal states. . . .[T]here is no . . . leasing, of submerged lands by the State except for oyster cultivation, phosphate mining, and the granting of rights of way for pipelines or utility lines." *The Programs of Coastal States for the Leasing of Submerged Lands*, *supra* note 84, at 12.
89. S.C. Code Ann. §48-43-390 (Cum. Supp. 1983). This law, originally enacted in 1977, provides: "The . . . Budget and Control Board [has] the authority, . . . to lease all State lands . . . for . . . drilling for and production of oil and gas. The . . . Water Resources Department . . . is . . . the . . . agent for the Board in selecting lands to be leased, administering the competitive bidding for leases, [and] administering the leases. . . ." *Id.* §48-43-390(A) (Cum. Supp. 1983).

    The state's Water Resources Commission must recommend that the lease be granted and a commission permit must be obtained before drilling operations are begun. *Id.* §§48-43-370(A), 48-43-390(B) (Cum. Supp. 1983). Drilling within a municipality is not permitted unless the local entity approves issuance of a state permit. *Id.* §48-43-370(B) (Cum. Supp. 1983).

    "No permit to drill a gas or oil well on any beach shall be granted by the Water Resources Commission." *Id.* §48-43-370(C) (Cum. Supp. 1983). However, "[t]he construction of drilling platforms in the Atlantic Ocean is permitted except that such platforms *shall not be located within one mile . . . of the mean high water mark of any beach* within the territorial jurisdiction of the State of South Carolina." *Id.* §48-43-390(F) (Cum. Supp. 1983) (emphasis added).

    The 1977 state act governing oil and gas exploration, waterfront and offshore terminals, oil spills and related pollution problems also stresses environmental and ecological concerns. It declares that "the *highest and best use* of the seacoast . . . *is as a source of public and private recreation*," and that "the preservation of this use is a matter of the highest urgency and priority, and that such use can only be served effectively by maintaining the coastal waters, estuaries, tidal flats, beaches, and public lands adjoining the seacoast *in as close to a pristine condition as possible*, taking into account multiple use accommodations necessary to provide the broadest possible promotion of public and private interests." *Id.* §48-43-520(1), (2) (Cum. Supp. 1983) (emphasis added).
90. *The Programs of Coastal States for the Leasing of Submerged Lands*, *supra* note 84, at 12.
91. 1977 S.C. Acts 123; codified at S.C. Code Ann. §48-39-10 *et seq.* (Cum. Supp. 1983). South Carolina was relatively late in passing such a regulatory scheme.
92. "By 1972 every state on the Atlantic coast except South Carolina had enacted legislation that established authority over what is perhaps the most critical resource of the coastal zone, the wetlands." Note, *supra* note 4, 29 S.C.L. Rev. at 666 (footnote omitted). These other states' statutes are enumerated at *ibid.* n. 5. Moreover, a legal commentator has asserted that South Carolina's 1977 CZM Act has many shortcomings. *Id.* at 672, 674, 694, 701-703.
93. *Id.* at 667 (footnote omitted).
94. S.C. Code Ann. §48-39-130(C). See also Note, *supra* note 4, 29 S.C.L. Rev. at 671, 672, 701.
95. *Id.* at 672-674.
96. *Id.* at 673-674, 676-678.
97. S.C. Code Ann. §48-39-130(D) (Cum. Supp. 1983). See also Wyche, *supra* note 3, 7 Ecology L.Q. at 166; Note, *supra* note 4, 29 S.C.L. Rev. at 701.
98. *Id.* at 675-676, 700.

The Law of the Coast in a Clamshell*

Part XVI: The Maine Approach

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Punctuated by sharp identations and guarded by 3,000 islands,[1] Maine's rocky coast offers one of the nation's most scenic seascapes. Millions of visitors are lured annually by the picture postcard beauty of this 3,478-mile shoreline.[2]

Legal rules governing public and private rights in the Pine Tree State's coast are a mixture of the old and the new.

An old ingredient: the Massachusetts Bay Colony's ordinance of 1641, which is one of the sources of present-day public rights to sail and fish in Maine's tidal waters.[3]

A new ingredient: the 1981 statute[4] quitclaiming to private parties the state's title to and public trust rights in tide and submerged lands that had been artificially filled before 1975.[5]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Maine's coastal zone comprises "all coastal towns and townships on tidewaters, all coastal islands, and the sea to the limits of the State's jurisdiction."[6] The area thus extends seaward to the outer limit of the United States' territorial sea and landward to the inland boundaries of the coastal towns and townships.[7]

Lands within the coastal zone may be divided into uplands, tidelands and submerged lands.[8]

A. Uplands

Private parties own 95 percent of the uplands along Maine's coast, with nonresidents owning more than one-third of these lands.[9] The state, however, asserts "title to all islands located in the sea within [its] jurisdiction . . ., except such as have been previously granted away by the State or are now held in private ownership, . . ."[10]

B. Tidelands

In 1692 Maine became a part of the Massachusetts Bay Colony,[11] thereby inheriting the colonial ordinance of 1647.[12] Under this early law, upland owners generally acquired title to the abutting tidelands.[13]

After achieving statehood in 1820,[14] Maine incorporated the colonial ordinance into its common law.[15] Consequently, most of the state's tidelands are privately held.[16]

Where tide and submerged lands had been filled before October 1, 1975, the state quitclaimed its title to private parties under the 1981 statute mentioned above.[17]

C. Submerged Lands

In 1953 Maine's title to submerged lands within a 3-geographical-mile belt along its coast was confirmed by the federal Submerged Lands Act.[18]

Subsequently, Maine spearheaded an effort by Eastern Seaboard states to assert each state's "exclusive right of dominion and control" beyond the 3-mile limit, but the United States Supreme Court rejected their contention in 1975.[19]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

As a result of Maine's adherence to the colonial ordinance of 1647, the property boundary between public and private lands within the state's coastal zone is generally the low-water line. The littoral owner of the upland parcel *prima facie* owns the adjoining tidelands.[20] Nevertheless, because private parties may separately convey the upland and adjacent tideland parcels that were originally held as a single tract, the high-water line is sometimes the boundary in dispute.

Whether the boundary is along the high-water or the low-water line usually depends on the language of the deed. In general, a grant extending waterward "to the shore" has been construed to embrace only the uplands, excluding the flats or tidelands.[21]

Although the location of the high-water mark may also be important in ascertaining the landward limit of

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* This is the 16th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the statutory and case law of the State of Maine concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1984 by Peter H. F. Graber. The author also asserts copyright protection for the first 15 articles in this series.

the public's rights in tidelands,[22] Maine's Supreme Judicial Court apparently has not discussed the appropriate method of determining that line.

B. Tideland/Submerged Land Boundary

Maine, like Massachusetts, is among the minority of coastal states in which the low-water line generally demarcates public and private ownership in tide-flowed lands. Unlike Massachusetts, however, Maine does not equate the term "low water mark," as used in the colonial ordinance of 1647, to mean the "lowest ebb of the tide" and the "extreme low water mark."[23]

In an 1847 decision, the Maine court stated:

> ". . . The [colonial] ordinance declares, that the proprietors of lands 'shall have propriety [*sic*] to the low water mark.' It evidently contemplates and refers to a mark which could be readily ascertained and established; and that, to which the tide on its ebb usually flows out, would be of that description. That place, to which the tide might ebb under an extraordinary combination of influences and of favoring winds, a few times during one generation, could not form such a known boundary, as would enable the owner of flats to ascertain satisfactorily the extent, to which he could build upon them. Much less would other persons, employed in the business of commerce and navigation, be able to ascertain with ease and accuracy, whether they were encroaching upon private rights or not, . . ."[24]

The court emphasized that the "ordinary," as distinguished from "extraordinary," low-water mark constitutes the line.[25]

There is one qualification, however: the boundary cannot be more than 100 rods, or 1,650 feet, waterward from the high-water line.[26]

C. Legal Effect of Physical Changes in the Location of the Shoreline

Presumably, Maine accepts the traditional common-law concepts that property boundaries along the coast change when there is accretion or erosion.[27] However, reported appellate case law on this question is rare.[28]

MAINE'S PUBLIC TRUST DOCTRINE

The concept that the public has the right to use tidal waters for certain purposes — the public trust doctrine[29] — is recognized in Maine, despite widespread private ownership of the tidelands.[30]

The state's law derives in part from the Massachusetts Bay Colony's ordinance of 1641. Navigation, "free fishing and fowling in any . . . Bayes, Coves and Rivers, so far as the sea ebbes and flowes . . ." are guaranteed under that ordinance,[31] which is part of Maine's common law.[32] Application of the ordinance was explained by the state's high court in this way:

> "It has been judicially adopted, not in the sense that the court extended it to this state, but that the court found it extended by the public itself, as an expression of a public right, so acted upon and acquiesced in as to have become a settled universal right."[33]

While Massachusetts courts have construed the public trust in tidelands relatively narrowly,[34] the Maine Supreme Judicial Court has approved various public uses of the tidelands. For example, a ferryboat may be moored on privately owned exposed tidal flats to load and discharge passengers.[35] The court has also approved the public's taking of shellfish[36] and digging for clams[37] in the flats.

The public may walk along tidal flats,[38] but it is still unclear whether there is a general public recreational right in the tidelands.[39]

Maine's high court justices declared in 1981 that the Legislature must meet a "particularly demanding standard of reasonableness"[40] in its attempt to release the state's public trust interests in coastal lands that had been filled before October 1, 1975. In upholding the legislative termination of these interests, the justices carefully analyzed five factors in what amounted to a balancing of public benefits and private expectations.

The justices found that (1) a legitimate public purpose was served by clearing title to filled lands; (2) filled lands were "substantially valueless for public trust purposes"; (3) extinguishing public trust rights would not impair such rights in remaining tide and submerged lands; (4) equitable considerations justified the expectations of private owners of filled lands; and (5) the state's regulatory authority over the filled lands would not be diminished by the termination of its public trust interests in those lands.[41]

PUBLIC ACCESS RIGHTS

Compared with many other coastal states, public access to the shoreline is somewhat restricted in Maine because the vast majority of the tidelands are privately held.[42] The Supreme Judicial Court, while upholding the public's right to walk along tidal flats, has said the public cannot cross private uplands to reach the flats.[43]

Some legal commentators, citing the applications of such legal doctrines as prescription, dedication and custom by other states to encourage beach access,[44] argue that these concepts also might be effectively asserted in Maine. One writer concedes, however, that "[a]lthough these doctrines are [generally] recognized in Maine, they have never been applied to establish public rights in coastal lands."[45]

In 1979 a bill was introduced in the Legislature to recognize rights of way on beaches within 6 feet landward of the mean high-water line, "provided that the public right to transit has been acquired by right of use, or easement, by prescription, dedication, custom or continuous right in the public, . . ."[46] The bill was withdrawn by its sponsor without being put to a vote.[47]

PRIVATE LITTORAL RIGHTS

Private upland owners in Maine are legally presumed to have the right of access to the ocean along their entire frontage.[48] In addition, they have a qualified right to erect wharves over the adjacent tidal waters.[49] Municipal officers are authorized to license the erection or extension of wharves.[50]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The director of the state Bureau of Public Lands may lease state-owned tide and submerged lands for statutorily designated purposes, including dredging, filling, "causeways, bridges, marinas, wharves, docks or other permanent structures."[51]

Submerged lands may be leased for aquaculture or scientific research by the Department of Marine Resources.[52]

B. Regulatory Functions

A number of statutes regulate activities in the coastal zone. For instance, permits must be obtained under the Alteration of Coastal Wetlands Act[53] from the state Board of Environmental Protection or a municipality before dredging, filling or erecting permanent structures in, on or over any coastal wetland[54] or bulldozing, removing sand or building permanent structures in, on or over any coastal sand dune.[55]

The Site Location Law requires different permits for projects over a certain size, *e.g.*, developments occupying 20 acres or more.[56] The law is administered by the Board of Environmental Protection.

By statute, mandatory shoreland zoning is required by municipalities in areas within 250 feet of the high-water mark.[57] The Land Use Regulation Commission is responsible for planning, zoning and subdivision control in the unorganized (*i.e.*, unincorporated) areas.[58]

These regulatory statutes are among the 11 core laws forming the basis of Maine's Coastal Program. The program, prepared under the federal Coastal Zone Management Act of 1972,[59] was approved by the United States in September 1978. The State Planning Office is the lead agency in administering the program.

ACKNOWLEDGMENTS

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REFERENCES

1. *Maine's Coastal Program and Final Environmental Impact Statement* 55, 58 (1978) [hereinafter cited as MCP].
2. *Id.* at 58.
3. The Massachusetts Bay Colony's ordinance of 1641 guaranteed the right of navigation, fishing and fowling. These rights were reserved when the ordinance was amended in 1647 to extend private upland owners' titles to the adjacent tidelands. The colonial ordinance is part of the common law of Maine. See generally J. Whittlesey, *Law of the Seashore, Tidewaters and Great Ponds in Massachusetts and Maine* (1932); Waite, *Public Rights in Maine Waters*, 17 Me. L. Rev. 161 (1965).
4. Me. Rev. Stat. Ann. tit. 12, § 559.
5. The constitutionality of the statute was upheld in an advisory opinion by the Justices of the Maine Supreme Judicial Court. *Opinion of the Justices*, 437 A.2d 597 (Me. 1981). See "Tidelands" under "Title to Lands Within the Coastal Zone" and "Maine's Public Trust Doctrine," *infra*, for a brief discussion of the statute and the advisory opinion.
6. MCP, *supra* note 1, at 58.
7. *Ibid.*
8. This classification is used for convenience and consistency with other articles in this series. In this series, the word *tidelands* has been defined as the band of lands between the lines of mean high water and mean low water. However, in Maine, as in Massachusetts, tidelands are sometimes referred to as the *foreshore* or *flats*. In addition, the term *intertidal area* is defined statutorily to mean "all land affected by the tides between natural high watermark and either 100 rods [1,650 feet] seaward therefrom or the natural low watermark, whichever is closer to the natural high watermark." Me. Rev. Stat. Ann. tit. 12, § 559. In this series, the term *submerged lands* has been used to refer to those lands seaward of the mean low-water line, but a Maine statute defines this term as meaning "all land affected by the tides seaward of the natural low watermark or 100 rods from the natural high watermark, whichever is closer to natural high watermark. . . ." *Ibid.*
9. MCP, *supra* note 1, at 56.
10. Me. Rev. Stat. Ann. tit. 1 § 27.
11. Whittlesey, *supra* note 3, at xiii-xiv.
12. This ordinance, *i.e.*, general law or statute, amended the 1641 ordinance; together, they are often referred to as "the ordinance of 1641-47."
13. The ordinance, as published in 1649, provided in part: ". . . [I]t is declared that in all creeks, coves and other places, about and upon salt water were the Sea ebs and flows, the Proprietor of the land adjoyning shall have propertie to the low water mark where the Sea does not ebb above a hundred rods, and not more where-soever it ebs farther. . . ." Whittlesey, *supra* note 3, at xxxvii.
14. Maine was admitted to the Union on March 15, 1820, "on an equal footing with the original states." 3 Stat. 544 (1820).
15. *Conant v. Jordan*, 107 Me. 227, 230, 77 A. 938, 939 (1910); *Barrows v. McDermott*, 73 Me. 441, 448 (1882).
16. *Sinford v. Watts*, 123 Me. 230, 122 A. 573 (1923).
17. Me. Rev. Stat. Ann. tit. 12, § 559.
18. 67 Stat. 29; codified at 42 U.S.C. § 1301 *et seq.*
19. *United States v. Maine*, 420 U.S. 515, 517-518 (1975).

    Maine statutory law, enacted in 1959, asserts "ownership of the [enumerated or described] waters and submerged lands . . . unless it shall be, with respect to any given parcel or area, in any other person or entity by virtue of a valid and effective instrument of conveyance or by operation of law." Me. Rev. Stat. Ann. tit. 1 § 3. The enumerated and described areas include "[t]he marginal sea to its outermost limits" and "[t]he high seas to whatever extent jurisdiction therein may be claimed by the United States . . ., or to whatever extent may be recognized by the usages and customs of international law or by any agreement, international or otherwise, to which the United States . . . or this State may be a party; . . . [and] [a]ll submerged lands, including the subsurface thereof, lying under said aforementioned waters." *Id.* § 2.
20. *Dunton v. Parker*, 97 Me. 461, 467, 54 A. 1115, 1118 (1903), *Snow v. Mt. Desert Island Real Estate Co.*, 84 Me. 14, 17, 24 A. 429, 430 (1891).
21. *Hogdon v. Campbell*, 411 A.2d 667, 672 (1980); *Whitmore v. Brown*, 100 Me. 410, 61 A. 985, 987 (1905); *Freeman v. Leighton*, 90 Me. 541, 545 (1897). But *cf. Snow v. Mt. Desert Island Real Estate Co., supra*, 84 Me. at 18, 24 A. at 430 (deed using both the "sea" and the "shore" was held to convey the tidelands as well as the uplands).
22. See "Maine's Public Trust Doctrine," *infra*.
23. For a brief discussion of the Massachusetts rule, see *Shore and Beach*, Vol. 50, No. 1, January 1982, p. 14.
24. *Gerrish v. Proprietors of Union Wharf*, 26 Me. (13 Shep.) 384, 395 (1847).
25. *Id.* at 395-396.
26. See quotation from colonial ordinance of 1647, *supra* note 13; see also *Sinford v. Watts, supra*, 123 Me. 230, 122 A. 573, and cases cited in Whittlesey, *supra* note 3, at 67.
27. In the previously mentioned 1981 statute quitclaiming the state's title to and rights in filled tide and submerged lands, it is stated that the statute "shall not be construed to affect the rules of law

otherwise in force relating to accretion or reliction of filled or other lands along . . . the coast . . .," implying that such rules exist in Maine. Me. Rev. Stat. Ann. tit. 12, § 559.

28. In *State* v. *Yates*, 104 Me. 360, 362, 71 A. 1018, 1019-1026 (1908), it was held that a public easement in a street that terminated at the high-water mark when laid out extended waterward when there was subsequently 88 feet of accretion to the underlying land.
29. For a brief description of the doctrine, which originated at common law and is based on antecedents in early Roman civil law, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
30. In *Opinion of the Justices, supra*, 437 A.2d 597, concerning the statute in which the state relinquished any public trust interest in previously filled tide and submerged lands, the justices expressly declined to answer two questions relating to the trust posed by the governor: (1) "Does the State of Maine have a trust responsibility for the benefit of the people of Maine in lands which are now or were formerly submerged under territorial waters and great ponds [*i.e.*, ponds with an area of 10 acres or more] or were formerly intertidal lands?" (2) "If the answer to Question 1 is in the affirmative, what are the rights of the beneficiaries and responsibilities of the trustee with respect to the filled, submerged and intertidal lands impressed with the trust?" *Id.* at 599-600.

    The statute in question itself expressly mentions the public trust. Me. Rev. Stat. Ann. tit. 12, § 599. The justices did recognize the existence of the trust. 437 A.2d at 607. However, they declined to answer the quoted questions because they said they "have no constitutional authority to go beyond the necessities of the solemn occasion [for giving an advisory opinion outside the context of a regular case] and give a general elucidation of our individual views on the so-called public trust doctrine as applied to all present or former tide and submerged lands." *Id.* at 611.
31. Whittlesey, *supra* note 3, at xxxvi. This ordinance was amended by the previously discussed ordinance of 1647, which contained a proviso assuring "the passage of boats or other vessels." See "Title to Lands Within the Coastal Zone," *supra*.
32. The public rights to fish and fowl may have existed in Maine even before the ordinance was applied to Maine in 1692. *Conant* v. *Jordan, supra*, 107 Me. at 238-242, 77 A. at 940.
33. *Id.* at 230, 77 A. at 939.
34. For a brief discussion of the Massachusetts public trust doctrine, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 14-15.
35. *Andrews* v. *King*, 124 Me. 361, 129 A. 298 (1925). The court also upheld the right of the passengers to cross the tidelands going to and from the boat.
36. *State* v. *Leavitt*, 105 Me. 76, 78, 72 A. 875, 877 (1909); *Moulton* v. *Libbey*, 37 Me. 472 (1854).
37. *State* v. *Lemar*, 147 Me. 405, 87 A.2d 886 (1952).
38. *Andrews* v. *King, supra*, 124 Me. 361, 129 A. 298.
39. Comment, *Coastal Recreation: Legal Methods for Securing Public Rights in the Seashore*, 33 Me. L. Rev. 69 (1981). "A recent action filed by a littoral owner in the coastal town of Wells sought a declaration that no such public recreational right exists. Although the case was dismissed at the trial level on procedural grounds, this attempt to exclude the public from the foreshore indicates that the conflict between private development and public recreational use of shorelands, which has already surfaced in several other states, will soon present itself in the courts of Maine." *Id.* at 69-70 (footnotes omitted).
40. *Opinion of the Justices, supra*, 437 A.2d at 607.
41. *Id.* at 607-609.
42. See "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
43. *King* v. *Young, supra*, 124 Me. at 361, 129 A. at 298-299.
44. For brief discussions of the use of such doctrines by other states, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23 (California); Vol. 49, No. 3, July 1981, p. 16 (Florida); Vol. 49, No. 4, October 1981, p. 28 (Texas); Vol. 50, No. 2, April 1982, p. 11 (New Jersey); Vol. 50, No. 3, July 1982, pp. 16-17, 19-20 (Oregon); and Vol. 51, No. 3, July 1983, p. 13 (New York).
45. Comment, *supra* note 39, 33 Me. L. Rev. at 85.
46. L.D. 1225, 109th Me. Legis., 1st Sess. (1979), as reprinted in Comment, *supra* note 39, 33 Me. L. Rev. at 98.
47. *Ibid.*
48. *Robinson* v. *Fred B. Higgins Co.*, 126 Me. 55, 135 A. 901 (1927).
49. *Ibid.*
50. Licensing is carried out under the Wharves and Weirs Act, Me. Rev. Stat. Ann. tit. 38 § 1021 *et seq.*
51. Me. Rev. Stat. Ann. tit. 12, § 558.
52. Me. Rev. Stat. Ann. tit. 12, § 6072.
53. Me. Rev. Stat. Ann. tit. 38, § 471 *et seq.* (Supp. 1983). This law was passed in 1975 to replace the Wetlands Control Act of 1967, formerly Me. Rev. Stat. Ann. tit. 12, § 4701 *et. seq.*
54. Me. Rev. Stat. Ann. tit. 38, § 471 (Supp. 1983). The Alteration of Coastal Wetlands Act defines "coastal wetlands," in part, as "all tidal and subtidal lands including all areas below identifiable debris line left by tidal action, all areas with vegetation present that is tolerant of salt water and occurs primarily in a salt water habitat, and any swamp, marsh, bog, beach, flat or other contiguous lowland which is subject to tidal action. . . ." *Id.* § 472 (Supp. 1983).
55. *Id.* § 471 (Supp. 1983). The act defines "coastal sand dunes," in part, as "sand deposits within a marine beach system above high tide including, . . . beach berms, frontal dune ridges, back dune areas and other sand areas deposited by wave or wind action." *Id.* § 472 (Supp. 1983).
56. *Id.* § 481 *et seq.*
57. Me. Rev. Stat. Ann. tit. 12, § 4811 *et seq.*
58. *Id.* § 681 *et seq.*
59. 16 U.S.C. § 1451 *et seq.*

The Law of the Coast in a Clamshell*

Part XVII: The Connecticut Approach

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To foster maritime commerce during its early days, Connecticut encouraged private owners of coastal property to erect wharves and piers across adjacent publicly owned tidal flats.[1]

That public policy, reflected in many court decisions,[2] contributed to the intense industrial and commercial development of Connecticut's 583-mile coast.[3]

But during the past quarter of a century, there has been a change of emphasis in the Constitution State's coastal law. To address environmental and other contemporary concerns, statutes have been enacted that impose broad regulations on the use of tidal wetlands and waters.[4]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Under the Connecticut Coastal Management Program, the state's coastal area stretches seaward to the limit of state jurisdiction in Long Island Sound.[5] The program utilizes a two-tier approach. The first tier extends only a short distance landward from the shoreline,[6] while the second tier is bounded by the inland limits of 36 coastal municipalities.[7]

Within the first tier, lands may be legally divided into uplands, tidelands and submerged lands.[8]

A. Uplands

Title to the great majority of Connecticut's coastal uplands is in private hands.[9]

B. Tidelands

Upon the signing of the Declaration of Independence, Connecticut became the owner of the tidelands, *i.e.*, lands between the lines of mean high and low water.[10] In contrast to Massachusetts and Maine, there had been no general extension of upland owners' titles to the adjoining tidelands by colonial authorities.[11] Although littoral owners theoretically can extend their title seaward by reclaiming tidal flats in front of their property,[12] filling of such areas is now subject to state regulation.[13]

C. Submerged Lands

Connecticut has dominion and control over submerged lands in Long Island Sound waterward to its boundary with New York.

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

In Connecticut, as in most states, the high-water mark divides the private uplands from the public tidelands.[14] However, the state's appellate courts have not explained how the location of this boundary is to be determined.

For regulatory purposes, the state's Coastal Management Act of 1978 refers to the *mean* high-water mark.[15] It can be argued that this term should be interpreted as the equivalent of the federal rule enunciated in the United States Supreme Court's 1935 *Borax* decision,[16] *i.e.*, that the line is based on a mean of all high tides over an 18.6-year period.

B. Legal Effect of Physical Changes in the Location of the Shoreline

Connecticut follows the usual rule that the upland owner is, in general, entitled to the benefit of gradual accretion to his property.[17]

This principle also has been applied to artificially reclaimed lands. An 1870 decision states that upon reclamation of the tidal flats adjoining uplands,

> "the line of high water mark is changed and carried into the harbor, and the [upland] owners' lands have gained the reclaimed shore by accretion; the principles governing the case being the same as those which prevail where the sea recedes gradually by accession of soil to the land."[18]

*This is the 17th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the statutory and case law of the State of Connecticut concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1984 by Peter H. F. Graber. The author also asserts copyright protection for the first 16 articles in this series.

Under this view, the private littoral landowner could theoretically enlarge his upland parcel by merely filling the adjoining state-owned tidelands. Today, however, the impact of this early opinion is modified by zoning restrictions and other police power regulations of coastal lands and waters.[19]

A 1982 Connecticut Supreme Court case[20] demonstrates that upland owners gaining title to accreted land may nevertheless lose that title to a public entity. Three storms between 1938 and 1955 washed away a sandspit between Long Island Sound and the mainland. Later, a 200-foot-wide beach gradually formed in front of the upland owners' property. The court ruled that this was accreted land; as such, the upland owners had title to it.

However, the court found that the town had maintained the accreted land as a public beach for more than the statutory period of 15 years by posting lifeguards, cleaning it and providing a rest room. The court said that this evidenced possession of "the disputed beach area in a manner that an owner of a public beach would ordinarily follow."[21] Consequently, the court ruled that the town had acquired title by adverse possession of the accreted land.

CONNECTICUT'S PUBLIC TRUST DOCTRINE

The public trust doctrine, the common-law concept assuring the public's right to use tidal waters for navigation, fishing and other purposes, has been judicially recognized[22] but apparently not widely applied in Connecticut. Instead, the state has relied on its regulatory authority under the police power to protect public rights.[23]

While some appellate court decisions declare that the state owns the tidelands as a trustee for the public,[24] others handed down during the 1800s and early 1900s emphasize the rights of private upland owners in adjoining tidal lands and waters.[25] A 1920 case, *Orange* v. *Resnick*,[26] was perhaps the most extreme example of the subordination of public rights, except for navigation, to a private use of tidelands.

In *Orange*, the state had deeded land between the mean high- and low-water marks to a town so that it could be filled and used to create a public park. The town sued the private upland owner to restrain him from building a large bathhouse extending from his property across the tidelands down to the low-water mark. Deciding in favor of the upland owner, the court stated:

> ". . . The statement may be found in many reported cases that riparian rights must be exercised in subordination to the paramount rights of the public; but this generality is qualified by the fact that not all public rights so-called in the shore below high-water mark are superior to the rights of the riparian owner. The public rights of fishing, boating, hunting, bathing, taking shellfish, gathering seaweed, cutting sedge and of passing and repassing, are necessarily extinguished, *pro tanto* [to that extent], by any exclusive occupation of the soil below high-water mark on the part of a riparian owner. The only substantial paramount public right is the right to the free and unobstructed use of navigable waters for navigation. . . ."[27]

This language probably was unnecessary to the decision, but has raised questions about competing public and private interests in the tidelands. In effect, the court first expanded the types of public rights in the tidelands to many more uses than navigation but then said that except for navigation they were all subordinated to the littoral owner's use.

Several subsequent decisions[28] modified the impact of *Orange* v. *Resnick* to some extent. In one case, the court upheld an injunction prohibiting an upland owner from taking sand from the adjoining state-owned tidelands and commercially selling it.[29] However, the present scope of the public trust doctrine in Connecticut is uncertain because the sweeping language in *Orange* has not been expressly overruled.

PUBLIC ACCESS RIGHTS

Beaches are a limited resource in Connecticut; of the state's 583 miles of total shorefront, only 78.5 miles (13.5%) are sandy beaches.[30] Most of the uplands adjoining these beaches are owned by private parties (48.4 miles) or by beach associations (16.3 miles) that usually restrict access to the water across their uplands to residents or association members.[31] However, other members of the public can gain lateral access to some of these beaches from nearby publicly owned beaches.[32]

Given the relative scarcity of beaches as a resource and historical land-use patterns along the state's coast, the Connecticut Coastal Management Program concludes that public access to beaches is "reasonable."[33] Nonetheless, it recognizes that such access could be improved through various methods.[34]

Connecticut's appellate courts, unlike those in other states,[35] have not been called upon to rule on the applicability of such legal theories as custom and implied dedication to expand public access to the shore. As mentioned above, however, a recent case does apply the doctrine of adverse possession to assure public use of an accreted beach area that otherwise would have been privately owned.[36]

PRIVATE LITTORAL RIGHTS

Private upland owners in Connecticut have enjoyed greater littoral rights than their counterparts in some other coastal states.[37] As noted in the 1920 case of *Orange* v. *Resnick*:

> ". . . It may be that our law as to the private rights of riparian owners is more liberal than that of some other jurisdictions. If so, it is probably due to the conformation of our shore bordering on Long Island Sound, which, in its sheltered parts, consists largely of tidal flats, quite useless for navigation, and in many places long occupied for manufacturing and commercial purposes. . . ."[38]

The right of access to adjoining navigable waters is the "fundamental littoral right" of upland owners in Connecticut.[39] This right is the basis for what is characterized as the owners' exclusive franchise—or special privilege—of reclamation of adjacent tidelands and wharfing out.[40]

In the early days of statehood, private owners of uplands were encouraged to build wharves and piers on the public tidelands to accommodate maritime commerce.[41] This public policy helped spur coastal development. By 1872 the harbor at New Haven had become so busy that one of the first restraints on these owners was enacted: a law creating a board of harbor commissioners empowered to regulate the length of wharves. The state's high court upheld, as a valid exercise of the police power, the board's establishment of a harbor line beyond which wharves could not extend.[42]

Later, private littoral rights were further abridged through various methods, such as municipal zoning[43] and state laws regulating filling, the erection of structures, and other activities in tidal waters and wetlands.[44]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The state commissioner of agriculture may lease certain areas for the purpose of planting and cultivating shellfish.[45]

B. Regulatory Functions

Although some restrictions on the use of tidal lands and waters had been imposed earlier, Connecticut's most sweeping legislation in this field has occurred during the past quarter-century. These regulatory programs reach beyond the control of navigation and encompass environmental and other concerns.

Regulation of the erection of structures and the placement of fill in tidal and coastal waters is now carried out by the state commissioner of environmental protection under a statute originally enacted in 1963.[46] Certificates or permits must be obtained from the commissioner before these activities are undertaken.[47] This curtailment of littoral owners' rights has been judicially upheld as a proper exercise of the state's police power.[48]

The commissioner of environmental protection is also empowered to regulate tidal wetlands, such as salt marsh and swamps, under a separate statutory scheme passed in 1969.[49] This law requires permits for draining, dredging, filling, erection of structures and certain other enumerated activities[50] in low-lying wetlands.[51] The statute calls for the issuance of maps depicting the boundaries of wetlands and the promulgation of regulations.[52]

Another law prohibits the removal of sand and gravel from lands beneath tidal and coastal waters unless a state permit is obtained.[53]

The state's Coastal Management Act of 1978,[54] augmenting the statutes mentioned above and other previously enacted laws, serves as the basis for the comprehensive Connecticut Coastal Management Program. The state Department of Environmental Protection is the lead agency administering the program, which was approved by the Federal Government in September 1980.[55] Local governments have a major role through incorporation of the statewide policies and standards into municipal coastal programs. Thirty-one coastal cities and towns have been developing municipal programs.[56]

ACKNOWLEDGMENTS

The author is grateful to Arthur J. Rocque, Jr., director, and Marianne Latimer, senior environmental analyst, Coastal Area Management Program, Department of Environmental Protection,State of Connecticut, for providing some of the source materials cited in this article.

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2. See, *e.g.*, *Simons* v. *French*, 25 Conn. 345, 351-352 (1856): "It is true that such right of wharfage originates in, and is derived from, the ownership of the adjoining upland, and it was deemed by our courts to be attached thereto, undoubtedly from motives of general policy and convenience, and perhaps because in the early settlement of the state, the establishment of such a principle would be an inducement to persons owning upland, to erect on the adjoining flats, wharves, and other conveniences for the accommodation of commerce, when the colony was unable to build them as its own expense."
   See also cases cited in note 12 *infra*.
3. *State of Connecticut Coastal Management Program and Final Environmental Statement* II-1, II-3, II-296 (1980) [hereinafter cited as CCMP].
4. See "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
5. CCMP, *supra* note 3, at S-1, II-28. The program is based in part on the Connecticut Coastal Management Act of 1978, Conn. Gen. Stat. § 29a-90 *et seq.*, which defines the coastal area. *Id.* § 22a-94.
6. This tier is bounded by a continuous line delineated by a 1,000-foot linear setback measured from the mean high-water mark in coastal waters, or a 1,000-foot linear setback measured from the inland boundary of state-regulated tidal wetlands (see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*), or the interior contour elevation of the 100-year frequency coastal flood zone, whichever is farthest inland. CCMP, *supra* note 3, at S-1, II-28-29. The Connecticut Coastal Management Act of 1978 refers to this landward line as the "coastal boundary." Conn. Gen. Stat. §§ 22a-93(5), 22a-94(b).
7. CCMP, *supra* note 3, at S-1, II-28.
8. This classification is used for convenience and consistency with other articles in this series.
9. The uplands abutting about 80 percent of the total shoreline are privately owned. CCMP, *supra* note 3, at II-297.
10. *Bloom* v. *Water Resources Comm'n*, 157 Conn. 528, 254 A.2d 884 (1969); *Shorefront Park Imp. Ass'n* v. *King*, 157 Conn. 249, 253 A.2d 29 (1968); *Rochester* v. *Barney*, 117 Conn. 462, 169 A. 45 (1933).
11. For brief discussions of the law in Massachusetts and Maine, respectively, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-14, and Vol. 52, No. 3, July 1984, p. 17.
12. *Norwalk* v. *Podmore*, 86 Conn. 658, 86 A. 582 (1913); *Ockerhausen* v. *Tyson*, 71 Conn. 31, 40 A. 1041 (1898); *Ladies' Seamen's Friend Soc'y* v. *Halstead*, 58 Conn. 144, 19 A. 658 (1889); *Lockwood* v. *New York & N.H.R.R. Co.*, 37 Conn. 387 (1870). Subsequent decisions seem to have distinguished these cases to some extent. *State* v. *Knowles-Lombard Co.*, 122 Conn. 263, 188 A. 275 (1936); *Rochester* v. *Barney*, *supra*, 117 Conn. 462, 169 A. 45.
13. See "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
14. See, *e.g.*, *Roche* v. *Town of Fairfield*, 186 Conn. 490, 442 A.2d 911 (1982). *Lane* v. *Harbor Comm'rs*, 70 Conn. 685, 40 A. 1058 (1898).
15. Conn. Gen. Stat. § 22a-94(b) (emphasis added).
16. *Borax Ltd.* v. *Los Angeles*, 296 U.S. 10 (1935).
17. *Roche* v. *Town of Fairfield*, *supra*, 186 Conn. 490, 442 A.2d 911; *Rochester* v. *Barney*, *supra*, 117 Conn. 462, 169 A. 45.

18. *Lockwood* v. *New York & N.H.R.R. Co., supra*, 37 Conn. 387, 391. See also *Ockerhausen* v. *Tyson, supra*, 71 Conn. 31, 40 A. 1041.
19. In *Poneleit* v. *Dudas*, 141 Conn. 413, 106 A.2d 479 (1954), it was held that a city's zoning regulations could be validly applied to a previously water-covered area that had been reclaimed and had become part of the private owners' land. See also "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
20. *Roche* v. *Town of Fairfield, supra*, 186 Conn. 490, 442, A.2d 911.
21. 442 A.2d at 917.
22. *Lane* v. *Harbor Comm'rs, supra*, 70 Conn. 685, 694, 40 A. 1058.
23. See, *e.g.*, *Poneleit* v. *Dudas, supra*, 141 Conn. 413, 106 A.2d 479 (zoning regulations' applicability to limit upland owners' rights upheld). For a brief discussion of some regulations, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
24. See, *e.g.*, *Burrows* v. *Gallup*, 32 Conn. 493, 500 (1865); *Brower* v. *Wakeman, supra*, 88 Conn. 8, 80 A. 913.
25. See, *e.g.*, *Norwalk* v. *Podmore, supra*, 86 Conn. 658, 86 A. 582; *Ockerhausen* v. *Tyson, supra*, 71 Conn. 31, 40 A. 1041; *Ladies' Seaman's Friend Soc'y* v. *Halstead, supra*, 58 Conn. 144, 19 A. 658; *Lockwood* v. *New York & N.H.R.R. Co., supra*, 37 Conn. 387. For a brief discussion of upland owners' rights, see "Private Littoral Rights," *infra*.
26. 94 Conn. 573, 109 A. 864 (1920).
27. 94 Conn. at 578, 109 A. at 865-866. *Orange* v. *Resnick* was strongly criticized by one legal commentator as follows: "Under [that case], one holding a riparian franchise [of the right to wharf out or to access to navigable waters] would have almost unlimited privileges upon the land of the state unless it could be shown that his activity would obstruct navigatioin. The public's right—indeed, a right of sovereignty—which historically was restrictively granted to the abutting riparian proprietor on a conditional basis—becomes completely extinguished. Here is an instance of the dog walking the man." Tremont, *supra* note 1, 33 Conn. B.J. at 436.
28. *Poneleit* v. *Dudas, supra*, 141 Conn. 413, 106 A.2d 479; *State* v. *Knowles-Lombard Co., supra*, 122 Conn. 263, 188 A. 275.
29. *State* v. *Knowles-Lombard Co., supra*, 122 Conn. 263, 188 A. 275.
30. CCMP, *supra* note 3, at II-298.
31. *Id.* at II-299.
32. Lateral access is possible because the state, in general, owns the lands lying below the high-water line, even if the uplands adjoining the beaches are in private ownership. The Connecticut Coastal Management Program document states: "[T]he total amount of beach [below the high-water line] directly accessible to the general public from state fee-owned or unrestricted municipal beaches is at least 42 miles or 54% of the total length of beach resource in Connecticut." CCMP, *supra* note 3, at II-300. Municipalities own 22.7 miles (28.8% of the total) of sandy beaches, and the state 7.5 miles (9.5%). *Id.* at II-299.
33. *Id.* at II-300.
34. *Id.* at II-300-301. Four major ways of improving access are recommended: (1) developing underutilized state-owned beach areas; (2) increasing the capacity of, and improving access to, existing state-owned beach facilities; (3) acquiring and developing new state beach facilities; and (4) "requiring the provision or improvement of access through applicable state regulatory and planning programs." *Id.* at II-301. See also the recreation and beach access policies from the Connecticut Coastal Management Act, Conn. Gen. Stat. § 22a-92(a)(6), (c)(1)(J), (c)(1)(K). *Id.* at II-158-159.
35. As to the applicability of the doctrine of custom, see *Shore and Beach*, Vol. 49, No. 2, July 1981, p. 16 (Florida), and Vol. 50, No. 2, July 1982, pp. 16-17, 19-20 (Oregon); as to the theory of dedication, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23 (California), Vol. 49, No. 4, October 1981, p. 28 (Texas), and Vol. 51, No. 3, July 1983, p. 13 (New York).
36. *Roche* v. *Town of Fairfield, supra*, 186 Conn. 490, 442 A.2d 911. By holding that the town had acquired title by adverse possession, the court found it unnecessary to determine the applicability of the theory of implied dedication. 442 A.2d at 919 n. 15. See text accompanying notes 20 and 21 *supra*.
37. California case law, for example, has sometimes limited the littoral rights of private owners of uplands. See *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23.
38. *Orange* v. *Resnick, supra*, 94 Conn. at 579.
39. *Id.* at 573.
40. *Ibid.*
41. See, *e.g.*, *Simmons* v. *French, supra*, 25 Conn. 346. As one legal writer put it: "A seafaring state in a young nation with little public money could only thrive through the expenditures of private capital. Private wharfage . . . was encouraged to such an extent that the law which permitted one legally to build a wharf upon public land did not consider the abutting landowner as without interest in the soil and the title in the wharf was considered to vest in him." Tremont, *supra* note 1, 33 Conn. B.J. at 433-434.
42. *State* v. *Sargent*, 45 Conn. 358 (1877). In *Lane* v. *Harbor Comm'rs, supra*, 70 Conn. 685, 40 A. 1058, the court, pointing out that the privilege of wharfing out was qualified, held that a permit to build a wharf could be revoked at any time before construction was begun.
43. *Poneleit* v. *Dudas, supra*, 141 Conn. 413, 106 A.2d 479.
44. See "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
45. Conn. Gen. Stat. § 26-194.
46. *Id.* § 22a-359 *et seq.*
47. *Id.* § 22a-361.
48. See, *e.g.*, *Hotchkiss Grove Ass'n* v. *Water Resources Comm'n*, 161 Conn. 50, 282 A.2d 890 (1971); *Bloom* v. *Water Resources Comm'n, supra*, 157 Conn. 528, 254 A.2d 884.
49. Conn. Gen. Stat. §22a-28 *et seq.* The law is described in Comment, *The Wetlands Statutes: Regulation or Taking?*, 5 Conn. L. Rev. 64 (1972).
50. Conn. Gen. Stat. § 22a-29.
51. The law defines the word "wetlands" in terms of the growth or capability of growth of certain specified plants. It also states that the word means "those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water." *Ibid.*
52. *Id.* § 22a-30. Tidal wetlands regulations became effective in August 1980.
53. *Id.* § 22a-383 *et seq.*
54. Conn. Gen. Stat. § 22a-90 *et seq.*
55. The program was prepared under the federal Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 *et seq.*
56. *CZM Information Exchange*, p. 30 (April 1984).

The Law of the Coast in a Clamshell*

Part XVIII: The Virginia Approach

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HOG ISLAND, along Virginia's Eastern Shore, was the setting for an unusual legal battle pitting an environmental organization, which had bought most of the barrier island to protect it from man's intrusions, against members of the public who wanted to use its beaches and tidal marshes for recreational purposes.[1]

In a 1982 decision that may affect public and private property rights along much of the Commonwealth of Virginia's 5,000-mile tidal shoreline,[2] the state Supreme Court breathed new life into an ancient legal concept, the commons,[3] by holding that the public is entitled to use the island's beaches and marshes for fishing, fowling and hunting. The court reached its conclusion on the basis of statutes dating back to 1780 that preserved certain coastal areas as a common.

While history played a dramatic role in the Hog Island case, contemporary ecological concerns over the preservation of wetlands and coastal sand dunes[4] are among the major factors behind the Old Dominion State's efforts to complete the development of its proposed Coastal Resources Management Program.[5] The state hopes to gain Federal Government approval of the program during 1985.[6]

Environmental concerns also prompted Virginia to enter into a 1983 agreement establishing the Chesapeake Executive Committee "to assess and oversee the implementation of coordinated plans to improve and protect the water quality and living resources of the Chesapeake Bay estuarine system."[7]

TITLE TO LANDS WITHIN THE COASTAL ZONE

All of Tidewater Virginia[8]—which comprises 29 percent of the commonwealth's land area—constitutes the Virginia coastal zone as defined in the proposed Coastal Resources Management Program. The zone embraces all non-federally owned lands in the state along the shorelines of the Atlantic Ocean, Chesapeake Bay and the tidal rivers. It encompasses the lands and waters within the state's portion of the Chesapeake and extends seaward to the limits of the state's jurisdiction in the Atlantic.

Coastal zone lands may be legally classified as uplands, tidelands and submerged lands.[9]

A. Uplands

Along Virginia's Atlantic coast, many stretches of the uplands immediately adjoining the shoreline are publicly owned, either by the Federal Government (*e.g.*, the southern portion of Assateague Island National Seashore, which extends into Maryland, and several national wildlife refuges) or by the commonwealth (*e.g.*, False Cape State Park near the North Carolina border). The Nature Conservancy, a nonprofit environmental organization, owns all or part of 13 barrier islands.[10]

Private parties have title to virtually all the uplands abutting the waters of Chesapeake Bay and the tidal rivers and streams in the coastal zone. However, marshes and other wetlands within these privately owned parcels are extensively regulated under the state Wetlands Act of 1972.[11]

B. Tidelands

Under a Virginia statute enacted in 1819,[12] the titles of private landowners of uplands adjoining tidewater were generally extended down to the low-water mark. While most tidelands are now privately held, an undetermined portion of the tidal shoreline that historically had been designated as or used by the public as a common remains in state ownership.[13]

The Virginia Colony had not made a blanket grant of all tidelands to the owners of the adjoining uplands such as occurred under the Massachusetts Bay Colony's ordinance of 1647.[14] Nevertheless, one legal commentator believes there is evidence that the Virginia Colony "routinely granted private title both to the tidal shore and to portions of the beds below the low water mark."[15]

Upon the signing of the Declaration of Independence, the Commonwealth of Virginia became the owner of all previously ungranted tidelands.[16] In 1780 the new state prohibited the grant of

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* This is the 18th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the Commonwealth of Virginia concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1985 by Peter H.F. Graber. The author also asserts copyright protection for the first 17 articles in the series.

"all unappropriated lands on the bay of Chesapeake, on the sea shore, or on the shores of any river or creek in the eastern parts of this commonwealth, which have remained ungranted by the former government, and which have been used as common to all the good people thereof. . . ."[17]

The 1819 act, while extending private upland owners' titles to embrace adjoining tidelands, preserved state ownership of coastal areas then used as a common.[18] In 1873 all the Atlantic shore still owned by the commonwealth, whether previously used as a common or not, was reserved from grant to private parties.[19]

A current statute, declaratory of existing law, provides that "[a]ll the beds of the bays, rivers, creeks and the shores of the sea . . . not conveyed by special grant or compact according to law, shall continue and remain the property of the Commonwealth of Virginia, . . ."[20] The previously mentioned 1982 Hog Island decision, tracing the history of legislation on this subject, concludes: "Thus, the reservation from grant of common lands made in 1780, and extended to include all of the Atlantic shore in 1873, continues to the present day."[21]

C. Submerged Lands

In general, Virginia owns the submerged lands lying waterward of the low-water mark.[22] The federal Submerged Lands Act of 1953[23] confirmed the commonwealth's title to such lands within a 3-geographical-mile strip of the Atlantic coast, but its claim to the area beyond that line was rejected by the United States Supreme Court in 1975.[24]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Although the low-water line generally divides public and private ownership of tide-flowed lands in Virginia,[25] the state's attorney general takes the position that the high-water mark is the boundary along those parts of the Atlantic coast where the commonwealth owns the "shores of the sea."[26]

B. Tideland/Submerged Land Boundary

In 1819 the Virginia General Assembly departed from the usual common-law rule that private upland titles extend only to the high-water mark by enacting a statute providing in part:

". . .[H]ereafter the limits or bounds of the several tracts of land lying on the Atlantic ocean, the Chesapeake bay, and the rivers and creeks thereof within this Commonwealth, shall extend to ordinary low water mark, . . ."[27]

As a result of this 1819 statute, the state Supreme Court has held that even when the express terms of a grant extend only to the high-water mark it is legally presumed to include the lands down to the low-water mark.[28] A 1919 case construed the term "low-water mark" to mean "normal, natural, usual, customary, or ordinary low water, uninfluenced by special seasons, winds, or other circumstances," as distinguished from the spring or neap tide.[29]

In 1972 the contemporary codified version of the 1819 statute was amended to refer to the "*mean* low-water mark."[30] It remains uncertain whether the courts will define "mean" in terms of a tidal datum based on an 18.6-year average as the U.S. Supreme Court did with regard to high water.[31]

C. Legal Effect of Physical Changes in the Location of the Shoreline

The low-water mark, as the principal property boundary separating private and public lands, shifts with gradual, imperceptible accretion and erosion.[32]

As in many other states, erosion and flooding are of concern in Virginia. A statute empowers counties, cities or towns to construct "a dam, levee, seawall or other structure or device, . . . to prevent . . . tidal erosion, flooding or inundation. . . ."[33] Other laws create the Public Beach Conservation and Development Commission, one of whose duties is to address erosion problems,[34] and the Virginia Beach Erosion Commission, whose "general purpose . . . is to stop, impede or correct erosion along the Atlantic coast in the City of Virginia Beach. . . ."[35]

VIRGINIA'S PUBLIC TRUST DOCTRINE

In many of the other coastal states, the public trust doctrine[36] is the legal theory invoked by the courts to protect the public's right to use tidal waters and the lands beneath them. In Virginia, an argument might be made that a provision on the conservation of natural resources, added to the state Constitution in 1971, would support a broader application of this doctrine by the commonwealth's courts.[37]

However, as demonstrated by *Bradford* v. *Nature Conservancy*,[38] the 1982 decision involving Hog Island's beaches and marshes, the Virginia Supreme Court favors the commons concept[39] as a means of protecting public rights.

Both the public trust doctrine and the commons concept evolved under English common law, and while they are distinct, their practical effect is similar.[40]

As mentioned above, the newly independent Commonwealth of Virginia passed a 1780 act prohibiting the grant of previously ungranted shores "which have been used as common to all the good people thereof. . . ."[41] However, the statute did not define the terms "shores" and "common." One legal commentator has concluded that the 1780 act's purpose was "to protect the recognized privilege of the general public, especially the poor, to fish from certain 'unappropriated lands on the . . . shores.' "[42] He has interpreted the geographical extent of the legislatively protected common broadly:

"Use of the shore for fishing involves launching boats, hauling seine nets, and casting lines into the surf. These activities, however, require land above the high water mark. The language of the 1780 Act referring to 'lands on the . . . shores' must mean, then, that the commons to be reserved consisted of shore and a portion of the adjoining uplands. Moreover, shores used for fishing likely would have been tidal flats and not marshes."[43]

An 1819 statute, also discussed above,[44] apparently broadened both the geographical area treated as a common and the types of uses protected there. Although this act extended upland owners' title to the low-water mark, it expressly preserved for public use lands "*now* used as a common."[45] This language suggests that shores that were a common as of 1819 would be protected even if they had not been used in that manner when the 1780 statute was passed.[46] In addition, it has been argued that the 1819 act preserved the public uses of fowling and hunting in marshes as well as fishing in the tidal flats.[47]

While some later legislation weakened the common rights,[48] an 1888 statute provided that

> "[A]ll unappropriated marsh or meadow lands lying on the eastern shore of Virginia, which have remained ungranted, and which have been used as a common by the people . . ., shall continue as such common, . . . [and] the people . . . may fish, fowl, or hunt on any such . . . lands."[49]

This act, which fails to define "marsh or meadow lands," remains in effect today, with only slight changes.[50] Another current law provides:

> "All the [ungranted] beds of the bays, rivers, creeks and the shores of the sea . . . shall continue and remain the property of the Commonwealth of Virginia, and may be used as common by all the people . . . for the purpose of fishing and fowling, and of taking and catching oysters and other shellfish, . . ."[51]

In 1982, in *Bradford* v. *Nature Conservancy*,[52] the Virginia Supreme Court interpreted the 1780, 1819 and 1888 commons statutes. The dispute arose when The Nature Conservancy, owner of substantial portions of Hog Island, a barrier island, denied members of a hunting club access to the Conservancy's lands.[53] The court "held that all of the Hog Island marshes are commons; any original Commonwealth grants of portions of the beach, if made after 1780, were void; any such grants made before 1780 passed valid title, subject, however, to a public right of use for fishing, fowling, and hunting; and no rights of commons extended to the uplands. . . ."[54]

In holding that any grant of Hog Island's beaches after 1780 was void, the Supreme Court relied on one of its earlier decisions[55] and accepted the trial court's finding that the island's beaches "had been used as a common for over 200 years."[56]

The *Bradford* decision reaffirmed the vitality of the ancient commons concept in Virginia. However, one significant difficulty with applying the concept to areas other than Hog Island is that "no one knows the number of miles of shoreline and the number of acres of marsh that are state owned or subject to common rights."[57]

The public trust doctrine, broadly applied by courts in some other coastal states, has been narrowly construed in Virginia. Navigation is the only public right protected by the trust, according to language in a 1932 case, *Commonwealth* v. *City of Newport News*.[58] Fishing, hunting and bathing apparently are uses beyond the limited scope of the state's trust doctrine.[59] Although concluding that "the public trust theory is likely to remain dormant,"[60] one legal commentator writes that "a contemporary Virginia court might well interpret the public trust more broadly" because of changes in the state's Constitution and statutes since that 1932 decision.[61]

PUBLIC ACCESS RIGHTS

In *Bradford* v. *Nature Conservancy*,[62] the Virginia Supreme Court preserved public rights of fishing, fowling and hunting on the Atlantic Ocean shore of Hog Island that had been used as a common before 1780. But at the same time the court effectively limited public access to the beaches. By holding that private roads to and along the beaches had not been impliedly dedicated to the public,[63] the court took a different position than its counterparts in California and Texas.[64]

The Virginia tribunal narrowly construed the doctrine of implied dedication by holding that there had been no formal acceptance by the county government of the roads.[65] Citing an 1851 case,[66] the court stated that what may amount to a dedication of land to public use in an urban area will not accomplish that result in a rural area.

It is interesting to speculate about whether the court's holding was influenced by the fact that the roads were owned by Hog Island's principal property owner, The Nature Conservancy, whose "avowed purpose . . . is to preserve the barrier islands in their natural state by limiting intrusions by man."[67] The court noted that "[a]s part of its effort to protect the [island's] ecology . . . , the Conservancy banned the use of all motor vehicles"[68] on its property.

In another context, implied dedication might be more acceptable to the court. Indeed, one legal commentator has concluded that, despite the *Bradford* decision, "the theories of dedication and prescription offer much more hope" than the public trust doctrine and concept of custom as methods for establishing access right on Virginia's tidelands.[69]

PRIVATE LITTORAL RIGHTS

In addition to enjoying the benefit of accretion to their property,[70] private owners of land adjoining tidal waters in Virginia have a number of other rights. Case law has long recognized the landowners' right of access to the navigable portion of such waters and the right to wharf out, subject to state regulation.[71]

Riparian rights[72] also are defined by legislation. For example, a statute allows riparian owners, under certain limited circumstances, to fill and to erect private piers for noncommercial purposes.[73] Other laws give these landowners the right to mine sand and gravel,[74] and the right to apply for an exclusive assignment of half an acre of oyster grounds.[75]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The commonwealth's Marine Resources Commission, subject to statutory limitations, is empowered to

lease the beds of certain state-owned waters for the prospecting for and removal of oil, gas and other minerals.[76]

While a state constitutional provision prohibits the leasing as well as the sale of "natural oyster beds, rocks, and shoals," it permits the legislature to "define and determine such [areas] by surveys or otherwise."[77] Statutes authorize the leasing of the beds of other tidal waters for oystering and clamming.[78]

B. Regulatory Functions

Coastal zone lands and waters are regulated under three principal statutory schemes: (1) the subaqueous lands management program,[79] (2) the Wetlands Act[80] and (3) the Coastal Primary Sand Dune Protection Act.[81]

Under Section 62.1-3 of the Virginia Code, the Marine Resources Commission is authorized to regulate the use of state-owned bottomlands through a permitting system. Except for certain enumerated activities, permits are required for "the taking and use of material, the placement of wharves, bulkheads, dredging and fill."[82] The commission has approved subaqueous guidelines to amplify the statute.

In 1972 the Wetlands Act[83] was passed, putting the "primary authority and initiative for wetlands protection not in a state-level agency created for the purpose, but in its localities: cities, counties and towns."[84] The statute is applicable throughout Tidewater Virginia.[85] As amended in 1982, the act regulates both "vegetated wetlands"[86] and "nonvegetated wetlands."[87]

Although emphasizing county or city control through the issuance of permits for activities other than those specified in a uniform local wetlands zoning ordinance,[88] the act sets forth statewide standards:

> "(1) Wetlands of primary ecological significance shall not be altered so that the ecological systems in the wetlands are unreasonably disturbed; [and]
>
> "(2) Development . . ., to the maximum extent practical, shall be concentrated in wetlands of lesser ecological significance . . . and in areas . . . apart from the wetlands."[89]

The Marine Resources Commission has promulgated guidelines that must be considered in applying the standards.[90]

In the Coastal Primary Sand Dune Protection Act,[91] passed in 1980, the legislature declared that "[i]inappropriate development on . . . sand dunes . . . may lead to increased shoreline erosion, coastal flooding, damage to fixed structures near the shore, loss of public and private open space, loss of wildlife habitat and increased expenditure of public funds."[92] Roughly following the pattern of the earlier Wetlands Act, the Sand Dune Protection Act provides for designated counties and cities[93] to regulate certain uses of sand dunes and "reaches" (coastal segments of sandy beaches fronting on Chesapeake Bay) under uniform local zoning ordinances.[94] State standards are set forth in the act,[95] and guidelines have been approved by the Marine Resources Commision.[96]

The programs for subaqueous lands management, wetlands management and sand dune protection under these statutes are among the seven existing core regulatory programs to be incorporated in the proposed Virginia Coastal Resources Management Program. The Commonwealth of Virginia, after having terminated its efforts to gain federal approval of a program in 1979, is now hoping to obtain such approval in 1985.[97] Virginia and Georgia are presently the only Atlantic Seaboard states without federally approved coastal programs.

ACKNOWLEDGMENTS

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REFERENCES

1. *Bradford v. Nature Conservancy*, 224 Va. 181, 294 S.E.2d 866 (1982). In this case, The Nature Conservancy, a nonprofit environmental organization, was sued by 18 persons who either owned land on the island or had hunted, fished or fowled there. The Commonwealth of Virginia later intervened as a plaintiff. For a brief discussion of the case and the statutes involved, see "Tidelands" under "Title to Lands Within the Coastal Zone" and "Virginia's Public Trust Doctrine," *infra*.

   In a related suit in federal court, the Conservancy sued a sportsmen's club, which owned some land on the island, claiming the club had no right to use roads through the Conservancy's property or to hunt or fish on the beaches and marshes alleged to be within such property. *Nature Conservancy v. Machipongo Club, Inc.*, 419 F.Supp. 390 (E.D. Va. 1976), *rev'd in part*, 571 F.2d 1294, *modified on rehearing*, 579 F.2d 873 (4th Cir. 1978), *cert. denied*, 439 U.S. 1017 (1978). The Court of Appeals for the Fourth Circuit held the club had no right to use the roads, but did not rule on its right to use the beaches and marshes because of the pending state court case.
2. This is the approximate total length of the state's shoreline along the Atlantic Ocean, Chesapeake Bay and such tidal rivers as the Potomac, Rappahannock, York and James. Draft *Virginia Coastal Resources Management Program Document* 1 (Aug. 15, 1983) [hereinafter cited as Draft VCRMP]. The state's Atlantic shoreline is about 100 miles long. Telephone conversation on October 19, 1984, with Keith Buttleman, administrator, Commission on the Environment, Commonwealth of Virginia.
3. For a brief introduction to the commons concept, see *infra* note 39 and accompanying text under "Virginia's Public Trust Doctrine."
4. For a brief discussion of existing wetlands and dunes management programs, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
5. The proposed program is being prepared under the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq.* In May 1982 Virginia, which had not participated in the CZM program since April 1979, advised the federal Office of Ocean and Coastal Resource Management (OCRM) of the state's intention to pursue the development of an approvable coastal program.

   The draft proposed coastal program involves a "networking" of existing legislative programs. The draft outlines 24 goals and enumerates 98 activities already being performed by more than 20 state agencies that constitute the foundation for the proposed program. Draft VCRMP, *supra* note 2, at I-1-5.
6. The Council on the Environment, the state's lead agency for the proposed coastal program, scheduled public hearings on it for December 1984, submitted the draft program document to OCRM and hopes to obtain federal approval of the program in March 1985. Telephone conversation on October 19, 1984, with Buttleman, *supra* note 2.
7. Chesapeake Bay Agreement of December 9, 1983. The other parties to the agreement are the United States Environmental Protection Agency, Maryland, Pennsylvania and the District of Colum-

bia. For a brief discussion of Chesapeake Bay and its pollution problems, see *Shore and Beach*, Vol. 52, No. 1, January 1984, p. 3.

8. Draft VCRMP, *supra* note 2, at 1. The term *Tidewater Virginia* is defined in the Wetlands Act to mean 29 counties and 18 cities in the eastern part of the state. Va. Code § 62.1-13.2. The same definition is in the chapter of the Virginia Code concerning the state's Marine Resources Commission. *Id.* § 28.1-2. "[T]his definition includes all the cities and counties lying wholly or in part in that portion of Virginia below the fall line and thus subject to the rise and fall of the tide." Brion, *Virginia Natural Resources Law and the New Virginia Wetlands Act*, 30 Wash. & Lee L.Rev. 19, 18 (1973).
9. This classification is used for convenience and consistency with other articles in this series. However, in Virginia, the words *fastland* and *highland* are sometimes used to refer to the upland, the word *foreshore* to mean the tidelands (lands between the lines of mean high water and mean low water) and the term *subaqueous lands* to describe both tidelands and submerged lands (lands below the line of mean low water).
10. Brion, *The Unresolved Structure of Property Rights in the Virginia Shore*, 24 Wm. & Mary L.Rev. 727 (1983). See also Embrey, *Waters of the State* 174-211 (1931).
11. Va. Code § 62.1-13.1 *et seq*. For a brief discussion of this statute and other regulatory measures, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
12. 1818-19 Va. Acts ch. 28.
13. *Bradford* v. *Nature Conservancy*, *supra*, 224 Va. 181, 294 S.E.2d 866. As to the uncertainty of the geographical extent of the areas designated or used as a common, see *infra* note 57 and accompanying text under "Virginia's Public Trust Doctrine."
14. However, the Virginia Supreme Court recently recognized that the English crown, acting through the royal governors, had been empowered to grant the submerged bed of a cove to private parties. *Commonwealth* v. *Morgan*, 225 Va. 517, 303 S.E.2d 899 (1983). See also Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 747 ("patents to lands in Tidewater Virginia often extended by their express terms below low water mark to include the beds of tidal creeks and inlets") (footnote omitted). For brief discussions of the effect of the 1647 ordinance in Massachusetts and Maine, respectively, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-14, and Vol. 52, No. 3, July 1984, p. 17.
15. Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 741. He states that the "only two relevant adjudicatory actions [surviving] from the colonial period," the Grand Assembly's 1679 *Robert Liny* order and the Virginia General Court's 1740 decision in *Curle* v. *Sweney*, "are entirely consistent with the implications of . . . legislative enactments" beginning in 1672 that permitted the transfer of tidelands into private ownership. *Ibid.* Virginia courts have interpreted the *Liny* order inconsistently, with at least six Virginia Supreme Court decisions treating the order "as the statutory ancestor of the 1819 Act which expressly recognized that the title of a riparian landowner on tidal waters runs to the low water mark." *Id.* at 738-739 n. 54. In the *Liny* order, it was stated that "every mans right by vertue of his patent extends into the rivers or creekes soe farre as low water marke." 2 Henning, Va. Stat. 456.
16. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842); *Avery* v. *Beale*, 195 Va. 690, 697, 80 S.E.2d 584, 588 (1954); *Commonwealth* v. *Newport News*, 158 Va. 521, 541, 164 S.E. 689, 694-695 (1932).
17. 10 Henning, Va. Stat. 226. For a brief discussion of the Virginia concept of the commons, see "Virginia's Public Trust Doctrine," *infra*. The 1780 statute amended a 1779 act establishing a state land office and providing conditions for the granting of waste and unappropriated land. 10 Henning, Va. Stat. 50.
18. 1818-19 Va. Acts ch. 28. Summarizing the effect of the 1780 and 1819 acts, a legal writer states that they "effectively created three kinds of tidal shores: (1) shores that had been reserved from grant by the Colony government, that were being used as commons in 1780 and that, therefore, were reserved from grant; (2) shores, other than the 1780 commons, that were used as commons in 1819 and, although they were privately owned, were subject to a specified common right of use; and (3) all other shores, which were privately owned if the adjacent riparian land was privately owned." Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 748-749.
19. 1872-73 Va. Acts ch. 333.
20. Va. Code § 62.1-1. This is the current form of the act originally passed in 1780, which has been reenacted through the years. *Bradford* v. *Nature Conservancy*, *supra*, 224 Va. 181, 195, 294 S.E.2d 866, 873. In that case, the Virginia Supreme Court held that any original commonwealth grants of the beach, if made after 1780, were void.
21. *Id.* at 196, 294 S.E.2d at 873. The prohibition was not in effect from 1865 to 1871, when "the 'Reconstruction Government' . . . ordered the sale of all lands previously reserved as a common." *Ibid.* In 1873 the legislature reinstated the prohibition against granting the beds and shores if they had not been conveyed previously, but did not require their prior use as a common. 1872-73 Va. Acts ch. 333.
22. Va. Code §§ 62.1-1, 62.1-2. The Virginia Constitution prohibits the sale of "natural oyster beds, rocks, and shoals in the waters of the Commonwealth." Va. Const. art. I, § 3. In addition, Va. Code § 41.1-3 provides that no grant shall pass an estate or interest in lands made a common under Va. Code § 62.1-1. Citing these statutes and *Norfolk City* v. *Cooke*, 68 Va. (27 Gratt.) 130 (1876), the Virginia attorney general has concluded that the commonwealth "owns the beds of navigable waters and cannot, by grant, patent or other means convey its title [into] private ownership." 1981-82 Rep. of Va. Atty. Gen. 216 (1981).
23. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq*.
24. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975). In that case, the commonwealth contended that it was entitled to "exercise dominion and control over the exploitation and development of such natural resources as may be found in, on and about the seabed and subsoil underlying the Atlantic Ocean" within 100 miles of its coast because it was the successor to the Virginia Company, whose 1609 royal charter defined the colony's jurisdiction as extending that far seaward. Flaherty, *Virginia and the Marginal Sea: An Example of History in the Law*, 58 Va. L.Rev. 694, 695 (1972).
25. Va. Code § 62.1-2. See discussion under "Tideland Submerged Land Boundary," *infra*.
26. 1981-82 Rep. of Va. Atty. Gen. *supra* note 22, at 218 n.1. The term "shores of the sea" has been construed by Virginia courts as "the area between ordinary high and low water mark." *Bradford* v. *Nature Conservancy*, *supra*, 224 Va. at 194 n.4, 294 S.E.2d at 872 n.4; *Thurston* v. *Portsmouth*, 205 Va. 909, 911, 140 S.E.2d 678, 680 (1965); *French* v. *Bankhead*, 52 Va. (11 Gratt.) 136, 160 (1854).
27. 1818-19 Va. Acts ch. 28. In a preamble, the statute recites that "doubts exist, [as to] how far [waterward] the rights of owners of shores . . . extend. . . ." *Ibid.*
28. *Miller* v. *Commonwealth*, 159 Va. 924, 166 S.E. 557 (1932); *Waverly Water-Front & Imp. Co.* v. *White*, 97 Va. 176, 33 S.E. 531 (1899); *French* v. *Bankhead*, *supra*, 52 Va. (11 Gratt.) 136.
29. *Scott* v. *Doughty*, 124 Va. 358, 97 S.E. 802, 804 (1919).
30. Va. Code § 62.1-2 (emphasis added).
31. As of this writing, there have been no reported Virginia appellate decisions interpreting the 1972 amendment. In *Borax, Ltd.* v. *Los Angeles*, 296 U.S. 10 (1935), the U.S. Supreme Court, referring to the "ordinary high-water mark," equated "ordinary" with "mean," and held the line should be based on an 18.6-year average of all the high tides.
32. *Steelman* v. *Field*, 142 Va. 383, 128 S.E. 558 (1925).
33. Va. Code § 15.1-31.
34. *Id.* § 10-215 *et seq*. (Cum. Supp. 1984).
35. *Id.* §§ 62.1-153, 62.1-154.
36. For a brief discussion of the origin and development of the public trust doctrine, see the first article in this series, *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
37. Va. Const. art. XI. The provision states in part that "it shall be the Commonwealth's policy to protect its . . . lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth." *Id.* at XI, § 1.
38. *Bradford* v. *Nature Conservancy*, *supra*, 224 Va. 181, 294 S.E.2d 866.
39. A detailed explanation of the commons concept is beyond the purview of this article, but a brief introduction may be helpful.

    It is a flexible concept whose origin is disputed. Due to the fact that the commons concept has changed with time, and "because it became intertwined with several other concepts," it "is difficult to define precisely or accurately." In early England, "common lands [were] held by a community for public benefit. Gradually, however, as the royalty and central government gained power, this notion of communal ownership disappeared. Instead, the theory arose that the Crown or some designated governmental body owned the common lands and held them subject to certain public

uses. Over time, this definition of common lands also became obsolete as private parties appropriated [many] common lands. While some of these privately appropriated lands permanently lost their common lands status, many land tracts retained [that] status even after being conveyed to private parties. The nature of the public interest in common lands, however, had changed from a communal ownership interest to a communal right to make certain uses of another's land." Butler, *The Commons Concept: An Historical Concept With Modern Relevance*, 23 Wm. & Mary L.Rev. 835, 840-842 (1982) (footnotes omitted).

40. A legal writer, who has exhaustively discussed the commons concept, states:

"... [C]ommon rights existed in Virginia both before and after it became a state. ... [T]hose common rights often combined traits of both the traditional English commons concept and the public trust doctrine. For example, grants establishing common lands usually referred to the right of a class of people to use certain common lands, and not to their right to own those lands, thus suggesting that the public's interest was more similar to an easement than to a beneficial ownership. ...

"Perhaps this hybrid nature confused the Virginia courts, but for whatever reason, Virginia's position on common rights and the public trust doctrine is far from clear. ..." Butler, *supra* note 39, 23 Wm. & Mary L.Rev. at 891.

41. 10 Henning, Va. Stat. 226. The preamble of the act states that "certain unappropriated lands on the bay, sea, and river shores, in the eastern parts of this commonwealth, have been heretofore *reserved* as common to all citizens thereof, ..." *Ibid.* (emphasis added).
42. Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 750 (footnote omitted).
43. *Ibid.* Another legal commentator asserts that the right of fowling was also protected by the 1780 act. Butler, *supra* note 39, 23 Wm. & Mary L.Rev. at 916.
44. See "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
45. 1818-19 Va. Acts ch. 28 (emphasis added).
46. Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 750.
47. *Ibid.* "Tidal marshes, generally of little value for fishing, afford excellent opportunities for fowling and hunting. Thus, the language of the 1819 Act seems to establish common use rights in both tidal marshes and tidal flats and portions of the adjoining uplands necessary for fishing." *Ibid.*
48. Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 758.
49. 1887-88 Va. Acts ch. 219.
50. Va. Code § 41.1-4. "... [C]ontrary to the original legislation, the present Code contains the phrase 'eastern shore' in capitalized form. In Virginia the capitalization of the words 'Eastern Shore' is generally accepted to mean Accomack and Northampton Counties [*i.e.*, the peninsula extending southerly from Maryland between the Atlantic Ocean and Chesapeake Bay]. This change was the result of work done by Code revisors and not by legislative action. Therefore, the 1888 legislation may apply to all marshes on the eastern seaboard of Virginia rather than only to those in Accomack and Northampton Counties." Theberge, *The Commons Concept and Coastal Management*, Coastal Zone '83, 448, 451 (1983).
51. Va. Code § 62.1-1.
52. 224 Va. 181, 294 S.E.2d 866.
53. The barrier island, approximately six miles long and ranging in width from one mile to 300 yards, has "three distinct ecological features. The eastern portion [along the Atlantic] consists of sandy beaches. These beaches lead to a series of sand dunes and grassy areas, commonly known as the uplands. Adjacent to the uplands on the west side of the island, extending towards the mainland, are marshes." *Id.* at 189, 294 S.E.2d at 869.
54. Brion, *supra* note 10, 24 Wm. & Mary L.Rev. at 760.
55. *Miller* v. *Commonwealth*, *supra*, 159 Va. 924, 166 S.E. 557 (affirmance of a criminal trespass conviction of a duck hunter hunting on an intertidal marsh on the theory that the upland area adjoining the marsh, originally granted in 1760, had been extended to the low-water mark by virtue of the 1819 act).
56. 224 Va. at 197, 294 S.E.2d at 874.
57. Theberge, *supra* note 50, Coastal Zone '83 at 453. "... [N]o state inventory of commons exists. Preliminary research in only a few of Virginia's 47 coastal counties and cities has identified approximately 3,000 acres of land that may be common. Some of these areas are now claimed by private individuals." *Ibid.*
58. 158 Va. 521, 164 S.E. 689. In that case, the court upheld the legislative authorization for a city to discharge untreated sewage into the tidal waters of Hampton Roads and its estuaries without restrictions concerning its injury to the fishery.
59. *Id.* at 551-552, 164 S.E. at 698-699.
60. Livingston, *Public Access to Virginia's Tidelands: A Framework for Analysis of Implied Dedication and Public Prescriptive Rights*, 24 Wm. & Mary L.Rev. 669, 681 (1983) (footnote omitted).
61. *Id.* at 682.
62. 224 Va. 181, 294 S.E.2d 866.
63. *Id.* at 198-200, 294 S.E.2d at 874-876. The court also rejected the other legal theories asserted as a basis for recognizing either a public or private right of way over the property owned by The Nature Conservancy: reciprocal easements and easements by necessity. *Ibid.*
64. For brief discussions of the use of the doctrine of implied dedication in other states, see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 28 (California) and Vol. 49, No. 4, October 1981, p. 28 (Texas).
65. 224 Va. at 199, 294 S.E.2d at 875.
66. *Commonwealth* v. *Kelly*, 49 Va. (8 Gratt.) 632 (1851).
67. 224 Va. at 190, 294 S.E.2d at 869.
68. *Id.* at 198, 294 S.E.2d at 874.
69. Livingston, *supra* note 60, 24 Wm. & Mary L.Rev. at 682.
70. *Steelman* v. *Field*, *supra*, 142 Va. 383, 128 S.E. 558.
71. *Thurston* v. *Portsmouth*, *supra*, 205 Va. 909, 140 S.E.2d 678; *Taylor* v. *Commonwealth*, 102 Va. 759, 47 S.E. 875 (1904).
72. The term *riparian* is generally used in Virginia to refer to property adjoining the ocean as well as that adjacent to bays or tidal rivers. Although the word *littoral* more precisely refers to the seacoast, it is seldom used in Virginia law.
73. Va. Code § 62.1-3. However, riparian owners must obtain permits from the state Marine Resources Commission for "other reasonable uses of state-owned bottomlands, including but not limited to, the taking and use of material, the placement of wharves, bulkheads, dredging and fill, ..." *Ibid.* For a brief discussion of various state regulations, some of which limit riparian owners' rights, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
74. Va. Code § 62.1-193. See *United States* v. *Smoot Sand & Gravel Corp.*, 248 F.2d 822 (4th Cir. 1957); *Norfolk Dredging Co.* v. *Radcliff Materials, Inc.*, 264 F.Supp. 399 (E.D. Va. 1967).
75. Va. Code § 28.1-108. This statute is limited by a state consitutional provision prohibiting the granting of "natural oyster beds, rocks and shoals" into private ownership. Va. Const. art. XI, § 3. Under the same statute, riparian owners also have a preference to a state assignment of one-half acre of shellfish planting grounds.
76. *Id.* § 62.1-4. The statute provides that easements or leases shall not "affect or interfere with the rights vouchsafed to the people of the State concerning fishing, fowling, and the catching and taking of oysters and other shellfish, in and from the bottoms so leased, and the waters covering the same." *Ibid.*
77. Va. Const. art. XI, § 3.
78. Va. Code § 28.1-108 *et seq.* See also *id.* § 62.1-110 (planting and harvesting of clams and oysters).
79. *Id.* § 62.1-3 *et seq.*
80. *Id.* § 62.1-13.1 *et seq.*
81. *Id.* § 62.1-13.21 *et seq.*
82. *Id.* § 62.1-3.
83. *Id.* § 62.1-13.1 *et seq.* For a discussion of "[t]he tortuous history of the Virginia wetlands ... statute," beginning with a 1966 legislative resolution creating the Marine Resources Study Commission, see Brion, *supra* note 8, 30 Wash. & Lee L.Rev. 19, 40-47 (1973).
84. *Id.* at 19. The act "enables each ... locality containing defined wetlands to set up a local wetlands zoning board whose duty is to pass on all uses, with limited exceptions, of local wetlands. A decision-making framework is imposed on these boards which requires them to consider a broad range of the effects of wetlands alteration." *Ibid.* Local agency decisions are reviewable by the Virginia Marine Resources Commission. Va. Code § 62.1-13.11 *et seq.* Court appeals are allowed in certain instances. *Id.* § 62.1-13.15.
85. *Id.* § 62.1-13.2 (d). "The definition of Tidewater Virginia is the same as contained in [Va. Code § 28.1-2] dealing with the Virginia Marine Resources Commission; this definition includes all the cities and counties lying wholly or in part in that portion of Virginia below the fall line and thus subject to the rise and fall of the tide. ... [Because] the definition of wetlands is keyed to a tidal range plus certain named plants usually associated with coastal wetlands, ... many of the ... localities ... will not have any

wetlands over which to exercise the authority provided by the Act." Brion, *supra* note 8, 30 Wash. & Lee L.Rev. at 48-49 (footnote omitted).

86. This term is defined in part to mean "all that land lying between and contiguous to mean low water and an elevation above mean low water equal to the factor 1.5 times the mean tide range at the site of the proposed project . . . and upon which" certain enumerated marsh plants grow. Va. Code § 62.1-13.2(f).

87. This term is defined in part to mean "all that land lying contiguous to mean low water . . . and [below] mean high water not otherwise included in the term 'vegetated wetlands.' . . . " *Id.* § 62.1-13.2(1). "Nonvegetated wetlands" in the intertidal area were included within the act under a 1982 amendment, 1982 Va. Acts ch. 300.

88. The form of the local ordinance is contained in the act. Va. Code § 62.1-13.5

89. *Id.* § 62.1-13.3.

90. *Id.* § 62.1-13.1. The comprehensive revised 1982 guidelines are set forth in a 57-page booklet which, among other things, includes general and specific criteria for evaluating alterations to wetlands.

91. Va. Code § 62.1-13.21 *et seq.* (Cum. Supp. 1984).

92. *Id.* § 62.1-13.21 (Cum. Supp. 1984).

93. *Id.* § 62.1-13.25 (Cum. Supp. 1984).

94. *Ibid.* (Cum. Supp. 1984).

95. *Id.* § 62.1-13.23.

96. *Id.* § 62.1-13.1.

97. See *supra* notes 5 and 6.

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The Law of the Coast in a Clamshell*

Part XIX: The Alaska Approach

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EXTENDING 33,904 MILES, Alaska's coast dwarfs that of any other state. In fact, it is longer than that of all the 48 contiguous states and it represents about one-third of the total marine shoreline of the United States and its possessions.[1]

In an attempt to preserve the scenic splendor of the Alaska coast while encouraging the development of such natural resources as petroleum, state coastal legislation was passed in 1977.[2] That law is the foundation for the Alaska Coastal Management Program, which the Federal Government approved in 1979.[3]

Unusual legal problems abound along the state's coast. For example, the Inupiat Eskimos depend for their subsistence and culture on the bowhead whale, polar bear and other species. Beaufort Sea islands and shore areas are the habitat of these Arctic wildlife. Yet the state decided to offer offshore oil and gas tracts in the vicinity for lease. In 1982 the Alaska Supreme Court was called on to determine whether a public official had correctly found that the lease offering was in the state's best interest.[4]

The state's high court also had to decide in 1982 whether a private littoral property owner should obtain title to adjoining previously submerged land that had been formed by "glacio-isostatic uplift," or the gradual rise in the earth's crust resulting from the decrease in the downward pressure exerted by a glacial ice mass.[5]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Alaska's coastal zone, as defined in the state Coastal Management Program's guidelines and standards, extends seaward 3 geographical miles[6] and landward a variable distance to a line derived from a study of the relationship between the marine environment and the terrestrial environment.[7]

For convenience, lands within the coastal zone may be legally classified as uplands, tidelands and submerged lands.

A. Uplands

Despite federal statutes enabling the state and Alaska Natives—Aleuts, Eskimos and Indians—to select enormous quantities of land,[8] the United States still owns the majority of the uplands along Alaska's coast.[9] Vast coastal areas are included within national forests, parks, preserves and wildlife refuges.

However, the federal Coastal Zone Management Act mandates that, in Alaska as in other coastal states, federally owned or managed lands be excluded from the area directly subject to the state's Coastal Management Program.[10]

B. Tidelands

Under the federal Tidelands Act of 1957,[11] title to the lands between the lines of mean high and low tide passed from the United States[12] to the Territory of Alaska. This law also provided that, upon the territory's disposition of any such lands, those individuals occupying the property were entitled to preference rights.

Upon joining the Union on Jan. 3, 1959, the State of Alaska succeeded the territorial government as the owner of all publicly held tidelands by virtue of the equal-footing doctrine.[13] The new state's Alaska Land Act[14] allowed municipalities to obtain title to some tide and submerged lands.[15] Like the earlier federal Tidelands Act, this state law gave private parties who, before statehood, had occupied or developed tide and submerged lands preference rights to buy or lease them.[16] Some 25,000 acres of tide-flowed lands are owned by municipalities and individuals.[17]

C. Submerged Lands

The Alaska Statehood Act[18] provides that the Submerged Lands Act of 1953[19] applies to Alaska. Consequently, the state owns submerged lands within a 3-geographical-mile band of its coast.

However, Alaska and the Federal Government are currently involved in a lawsuit[20] over the method of defining the baseline to be used for measuring the 3-mile limit, the outcome of which litigation will affect control over petroleum-rich submerged lands in the

*This is the 19th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Alaska concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1985 by Peter H. F. Graber. The author also asserts copyright protection for the first 18 articles in this series.

Beaufort Sea along the state's northern coast.[21] And in 1975 the U.S. Supreme Court rejected Alaska's claim to ownership of submerged lands in the lower Cook Inlet; the state had asserted that the inlet was inland water under the "historic bay" doctrine.[22]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland Tideland Boundary

The Alaska Land Act characterizes the mean high-tide line as the legal boundary between privately held uplands and publicly owned tidelands.[23] However, as mentioned above, the same law recognizes preference rights in private parties who, before statehood, had occupied tide and submerged lands seaward of this line.[24]

Before statehood, the U.S. Court of Appeals for the Ninth Circuit, in a tax case, indicated that the line of mean high tide was the upland tideland property boundary.[25] Since statehood, Alaska's Supreme Court has not had occasion to discuss the methodology of locating the boundary on the ground.[26] It may be assumed, however, that that court would interpret the statutory phrase "mean high-tide line" in a manner consistent with the federal *Borax* rule, *i.e.*, as a line based on the use of a tidal datum averaging all the high waters over a 19-year epoch.[27]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Under Alaska case law, the legal boundary moves waterward if the upland owner can "demonstrate that a gradual depositing of alluvium by the actions of contiguous waters has taken place."[28] So long as the owner himself plays no part in causing the accretion, it does not matter if it is brought about artificially by the acts of man.[29]

In *Honsinger* v. *State*,[30] a 1982 decision, the Alaska Supreme Court wrestled with an unusual tidal boundary problem precipitated by a glacier. Plantiffs owned homestead lands in the Mendenhall Wetland area near Juneau. Since the time of the original homestead patent surveys, "approximately 95 acres of land had emerged contiguous to the seaward side of [their] property."[31] As shoreline owners, they claimed that the disputed property had formed by accretion and that they were entitled to it.

The state, however, argued that the general rule of accretion was inappropriate because "all or a portion of the land in question was formed instead by glacio-isostatic uplift."[32] The court described that term as follows:

> "'Glacio-isostatic uplift,' in simplified terms, refers to the gradual rise of the earth's crust which occurs when the downward pressure exerted by a glacial ice mass diminishes. The result at shorelines is a gradual emergence of land previously submerged."[33]

The *Honsinger* opinion contains a lengthy discussion of the legal effect of physical changes in the shoreline:

> "*Accretion* refers generally to the gradual and imperceptible increase in land area beside a body of water. In this context, it should be distinguished from '*avulsion*,' which refers to a sudden and perceptible change in the shoreline. . . . The benefits of accretion inure to the shoreline owner, while avulsion does not change the legal boundary. . . .
>
> ". . . The counterpart to accretion is '*reliction*,' which comes about by an emergence of existing soil. . . . Accretion and reliction, although physically quite different processes, are subject to the same rule regarding title; *i.e.*, the benefit inures to the shoreline owner. . . ."[34]

Although reliction has been defined as referring only to situations where the water has receded, the Alaska court ruled that "glacio-isostatic uplift is a form of reliction, and therefore subject to the general common law doctrine of accretion."[35] The court said it was "persuaded that reliction properly encompasses the emergence of soil either through recession of the water or through rise of the bed."[36]

The court concluded "that the particular physical process of reliction is irrelevant for several reasons": (1) "no case has been located in which the application of the law of reliction turned upon the nature of the geophysical process which caused the new land to emerge"; (2) the common-law reliction doctrine "originated well before the development of the glacio-isostatic uplift theory"; and (3) "the changes in the relative sea level are usually the result of a combination of geophysical processes."[37]

Glaciers are only one of numerous significant physical influences having an impact on the Alaska coast; others include earthquakes, volcanoes, tsunamis, snow avalanches, sea ice and icebergs.[38]

For example, the Good Friday earthquake of 1964 killed 130 people and caused $311 million of property damage. "Among the secondary hazards associated with the . . . earthquake were . . . land subsidence to 8 feet, uplift to 38 feet . . . and a disastrous tsunami which . . . was responsible for 90 percent of the deaths."[39] The Alaska attorney general's office took the position that shoreline changes caused by the quake were avulsive and thus did not change the location of property boundaries.[40]

Although only about 330 miles of Alaska's coastline is classified as developed, the state Coastal Management Program document indicates that critical erosion is occurring in as much as one-third of that area and in 40 coastal communities.[41] The program's standards provide that seawalls, bulkheads, groins and other structural solutions "may be most appropriate" in areas already developed, but that "[a]long the undeveloped coast where development is not imminent, Alaska's policy is not to control erosion."[42]

ALASKA'S PUBLIC TRUST DOCTRINE

Under the common-law public trust doctrine, the public has the right to use tidal waters for purposes such as navigation and fishing.[43] Application of this legal concept varies from state to state. In Alaska, the state Supreme Court has not yet been called on to determine the nature and extent of the doctrine.

"[U]ntil the Alaska courts speak on the subject," the state attorney general's office wrote in 1982, "we cannot conclude . . . exactly what the parameters of the . . . doctrine in Alaska are."[44] Pending such a judicial determination, the office advised the state Department of Natural Resources, as trustee of lands beneath navigable waters, "to assume . . . that the broad definition of public rights adopted by the California Supreme Court applies in Alaska."[45]

The California public trust doctrine is more expansive than that of most coastal states.[46] Encompassing far more than the traditional uses of commerce, navigation and fisheries, the concept has been judicially interpreted in that state to include using navigable waters and the underlying lands for recreational and environmental purposes.[47] Not only publicly held tide and submerged lands are subject to the public trust easement in California; it also encumbers privately owned tidelands sold by the state under general statutes of statewide applicability.[48]

Consequently, full judicial acceptance of the Alaska attorney general's views would mean that such lands in private ownership in that state are encumbered by the public trust easement and that the trust protects a multitude of uses.

PUBLIC ACCESS RIGHTS

Alaska constitutional and statutory law contains several provisions designed to protect public access to coastal waters. The state's Constitution guarantees that "[f]ree access to the navigable or public waters . . . shall not be denied any citizen . . ., except that the legislature may . . . regulate and limit such access for other beneficial uses or public purposes."[49]

A statute provides that, "[i]n classifying and making state land available for private use and settlement purposes," the director of the division of lands of the Department of Natural Resources should take "[s]pecial care . . . to preserve public access to public water. . . ."[50]

Before selling, leasing or otherwise disposing of any state land adjacent to a navigable body of water or waterway, the state generally must provide "the specific easements or rights-of-way necessary to ensure free access to and along the body of water."[51] The law dealing with the sale or lease of tide and submerged lands by cities requires "reasonable access to public waters."[52]

Public access is also one of the issues involved in the United States' conveyance of 44 million acres of land in Alaska to the Alaska Natives, based on aboriginal land claims. The 1971 federal law authorizing this conveyance, the Alaska Native Claims Settlement Act (ANCSA),[53] provides for the reservation of

> ". . . public easements across lands selected by the [Native corporations] and at periodic points along the courses of major waterways which are reasonably necessary to guarantee international treaty obligations, a full right of public use and access for recreation, hunting, transportation, utilities, docks, and such other public uses as the [Joint Federal-State Land Use] Planning Commission determines to be important."[54]

Pursuant to this ANCSA provision, the secretary of the interior in 1976 proposed to reserve to the United States a continuous shoreline easement 25 feet in width above mean high tide along all of the state's marine coastline. When Alaska Natives legally challenged this plan, the federal District Court for Alaska invalidated the continuous shoreline easement.[55] Later, the U.S. Department of the Interior changed its position, electing to reserve easements only at periodic points along the coast.[56]

The Alaska Coastal Management Program document, while noting that "access to and along the shoreline is for the most part unhindered,"[57] warns that "[t]he generally unrestricted access . . . enjoyed by past generations of Alaskans is coming to a rapid end."[58] Various reasons are cited for this change: Native land selection, increased industrial and residential construction in developed areas, homesteading, natural resource extraction.[59] State regulations setting forth the standards for implementing the management program call for giving "high priority to maintaining and, where appropriate, increasing public access to coastal water."[60]

PRIVATE LITTORAL RIGHTS

In the 1973 *Wernberg* decision, the Alaska Supreme Court ruled that a littoral property owner's private right of access to navigable waters could not be taken by the state unless the owner is compensated.[61] The case arose when the state built a highway across a creek and the tidelands of Cook Inlet near Anchorage. For more than 20 years, the owner of property abutting the creek had used the creek to navigate his commercial fishing boats between his property and the inlet. The highway destroyed the creek's navigability by obstructing the flow of tidal waters up the creek; it also blocked the owner's access across the tidelands to the inlet's deep waters.[62]

The State of Alaska asserted that it did not need to compensate the owner by virtue of what is referred to as the state navigation servitude, which is derived from the state's police power.[63] This state servitude is distinguishable from the federal navigational servitude, which arises from the commerce clause of the U.S. Constitution and which enables the Federal Government to regulate all navigable waters throughout the nation.[64] In *Wernberg*, the Alaska court ruled that, where the Federal Government has not acted, the state servitude "allows the state, in aid of navigation, to take private riparian rights[65] without paying the compensation that would otherwise be required" under the 14th amendment to the U.S. Constitution.[66]

The court recognized that the state navigation servitude was broad enough to permit the state "to take riparian or littoral property rights for 'beneficial or public uses' other than in aid of navigation,"[67] such as the highway in question. However, the court went on to hold that the Alaska Constitution requires the payment of compensation because the owner was deprived of his valuable private littoral right of access.[68] The court emphasized the importance of water access in Alaska:

"We are concerned that the uncompensated taking of such a littoral access right may effectively render abutting land valueless or greatly reduce it in value. Alaska has a seacoast longer than that of the entire United States. A large number of Alaskan communities are located on the shores of bays and inlets in order to gain water access for transportation and shipping, or easy access to the fertile fishing grounds of Alaska. A substantial amount of development in these cities is along the waterfront. . . . [A] declaration that littoral access may be taken for any public purpose without compensation will immediately devalue property in such areas and limit the development of many isolated communities whose only means of access is by water."[69]

A private owner's right of access to navigable waters was the subject of another recent Alaska Supreme Court case.[70] Two adjoining owners held tidelands granted to them by the state law recognizing the preference rights of prestatehood occupants of such lands. The trial judge had enjoined one owner from interfering with the adjoining owner's alleged easement across a dock. The Supreme Court reversed, holding that while the dock may have afforded more convenient access, the adjoining owner had another reasonable means of access to the waterfront area served by the easement.[71]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The state Department of Natural Resources may lease the state's tide and submerged lands for the exploration, development and extraction of minerals, including oil and gas.[72] It is the state's constitutional policy, however, that lease areas be subject to reasonable concurrent uses.[73]

A 1982 Alaska Supreme Court case[74] focused on a finding by the state commissioner of natural resources that it was in the state's best interest[75] to offer for lease oil and gas tracts in the Beaufort Sea, along the state's northern coast. The Barrier Islands in the proposed lease area and nearby shorelands are the habitat for the bowhead whale, polar bear, caribou and other Arctic species that the Inupiat Eskimos, the Native inhabitants, depend on for their subsistence and culture.[76]

The Supreme Court affirmed the lower court's remand to the commissioner for specific findings on the impact of the lease sale on the Eskimos' subsistence activities.[77] "The effect of this part of the . . . opinion is that, for policy reasons, the state must expressly consider the effect of lease sales on subsistence users since such an effect is a critical factor in determining the state's best interest."[78]

The state is also authorized to lease tide and submerged lands for purposes other than extraction of mineral resources.[79] Leases of such lands for the development of shore fisheries are permitted.[80]

B. Regulatory Activities

In 1977 the Alaska Coastal Management Act[81] was passed. This act authorizes the state Coastal Policy Council[82] to approve the Alaska Coastal Management Program and the numerous district coastal management programs[83] and to adopt regulations setting forth guidelines and standards for implementing the act.[84]

One Coastal Policy Council regulation incorporates into the coastal program "the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality. . . ."[85] The state's coastal zone is also subject to regulation by a number of other state and local governmental agencies. For example, the filling, excavation and reconstruction of improvements in tide and submerged lands require permits from the state Department of Natural Resources.[86]

Alaska's "power to regulate and control activity within her territorial waters, at least in the absence of conflicting federal legislation," was upheld by the U.S. Supreme Court in 1961, two years following statehood.[87] That decision was handed down in a case involving a tax imposed on freezer ships used for the taking and preservation of salmon along Alaska's shores. Although the case originated when Alaska was still a territory, the high court decided it because of its importance to the then new state.[88]

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REFERENCES

1. *State of Alaska Coastal Management Program and Final Environmental Impact Statement* 241 (1979) [hereinafter cited as ACMP]; 1 *A Study of Federal Land Laws and Policies in Alaska* 26 (rev. ed. 1970).
2. 1977 Alaska Sess. Laws ch. 84; codified with amendments as Alaska Stat. § 46.10.010 *et seq.* (1984).
3. The program was prepared and approved under the federal Coastal Zone Management Act of 1972 as amended, 16 U.S.C. § 1451 *et seq.*
4. *Hammond* v. *North Shore Borough*, 645 P.2d 750 (Alaska 1982). For a brief discussion of this case, see "Leasing" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
5. *Honsinger* v. *State*, 642 P.2d 1352 (Alaska 1982). For a brief discussion of this case, see "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *infra*.
6. ACMP, *supra* note 1, at 18, 109, 114.
7. Under the Alaska Coastal Management Program, an initial landward boundary was derived from a state Department of Fish and Game document, *Biophysical Boundaries of Alaska's*

Coastal Zone. The coastal zone includes subzones of "direct interaction" ("the portion of the coastal area where physical and biological processes are a function of direct contact between land and sea") and "direct influence" ("the portion of the coastal zone extending seaward and landward from the zone of direct interaction . . . closely affected and influenced by the close proximity between land and sea"). ACMP, *supra* note 1, at 18, 110.

As district coastal management programs were developed and approved under standards and guidelines established by the Coastal Policy Council, local coastal resource districts could modify the coastal zone boundary under certain circumstances. *Id.* at 112-113. In some instances, the district programs have changed the initial landward boundary of the coastal zone. Telephone conversation on Jan. 25, 1985, with Amy Kyle, analyst, Office of Coastal Management, State of Alaska.

8. At statehood, the Federal Government owned almost all land in Alaska including virtually all of the coastal uplands. Under the Alaska Statehood Act of 1958, 72 Stat. 339, § 6, the state was authorized to select more than 103 million acres of land as state land. The Alaska Native Claims Settlement Act of 1971, 85 Stat. 688, codified as 43 U.S.C. § 1601 *et seq.*, provided that the Natives could select 44 million acres in compensation for their aboriginal claims. "Much of the land affected by these two acts is located in the coastal zone. . . ." ACMP, *supra* note 1, at 191.
9. Alaska's Coastal Management Program document states that, upon the completion of the land selections by the state and the Alaska Natives, the Federal Government's ownership will amount to about 57% of all the land in the state. "Until the selections are patented, the actual extent of coastline in each [ownership] category will be unknown. However, most of the coast is currently [in 1979] in federal ownership, . . . and will remain so." ACMP, *supra* note 1, at 257.

Since the selection and patenting processes have not yet been completed, it is still uncertain what proportions of coastal uplands will ultimately be held by the United States, the Natives, the state, local governments and private parties. Telephone conversation on Jan. 28, 1985, with Gary Gustafson, chief of land management, Department of Natural Resources, State of Alaska.

10. 26 U.S.C. § 1453(a). However, federal agencies actively participated in development of the Alaska Coastal Management Program. ACMP, *supra* note 1, at 191-193. In addition, following the Federal Government's approval of the state program, federal agencies were required under the Coastal Zone Management Act to conduct their activities in a manner consistent with the program's objectives. *Id.* at 224-225.
11. 71 Stat. 623; codified as 48 U.S.C. § 455 *et seq.* (1957).
12. The United States acquired these tidelands when Alaska was purchased from Russia under the Treaty of Cession in 1867, 15 Stat. 539. The United States held the tidelands in trust for the future state. *Young* v. *Town of Juneau*, 4 Alaska 372, 381 (1911).
13. For a brief description of the equal-footing doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.

The Alaska Statehood Act, passed July 7, 1958, expressly provided that Alaska was "admitted on an equal footing with the other States in all respects whatever." 72 Stat. 339, § 1. See also *City of Juneau* v. *Cropley*, 429 P.2d 21 (Alaska 1967); *State* v. *A.J. Industries, Inc.*, 397 P.2d 280 (Alaska 1964).

The Alaska Constitution provides that "[l]ands . . ., including submerged and tidal lands, possessed or acquired by the State, and not used or intended exclusively for governmental purposes, constitute the state public domain." Alaska Const. art. VIII, § 6.

14. 1959 Alaska Sess. Laws ch. 169; codified with amendments as Alaska Stat. § 38.05.005 *et seq.* (1984).
15. Alaska Stat. § 38.05.820 (1984).
16. *Ibid.* Municipalities' rights and private occupants' preference rights to tidelands have been the subject of several Alaska Supreme Court decisions. See, *e.g.*, *State* v. *City of Haines*, 627 P.2d 1047 (Alaska 1981) (city entitled to tidelands adjacent to area annexed after April 1, 1964); *City of Homer* v. *State*, 566 P.2d 1316 (Alaska 1977) (city not denied due process by decision awarding certain tidelands to private party with preference rights rather than to city); *City of Juneau* v. *Cropley*, *supra*, 429 P.2d 21 (use of filled area for storage of construction machinery constituted a beneficial use entitling private party to preference rights); *State* v. *A.J. Industries, Inc.*, *supra*, 397 P.2d 280 (rock fill created over 25 years qualified as a permanent improvement entitling private party to preference rights).
17. ACMP, *supra* note 1, at 459.
18. 72 Stat. 339, § 6(m).
19. 67 Stat. 29.
20. *United States* v. *Alaska*, No. 84 original.
21. The Alaska boundary case, now pending before a special master, involves the state's coastline from Ivy Cape to the Canadian border, which is almost as long as all of California's coastline.
22. *United States* v. *Alaska*, 422 U.S. 185 (1975). The United States brought that lawsuit after Alaska had offered 2,500 acres of submerged lands for competitive oil and gas lease sale.
23. Alaska Stat. § 38.05.820 (1984). Another provision in the same statute defines the word *tideland* as meaning "land which is periodically covered by tidal water between the elevations of mean high and mean low tides." *Id.* § 38.05.965 (1984).
24. *Id.* § 38.05.820 (1984).
25. *Demmert* v. *City of Klawock*, 199 F.2d 32, 33 (9th Cir. 1952).
26. The cases expressly or impliedly relating to the tidal boundary have typically involved the question of municipalities' rights and private parties' preference rights to tidelands. See cases cited *supra* note 16.
27. For a brief discussion of *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10 (1935), see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18.
28. *Schafer* v. *Schnabel*, 494 P.2d 802, 807 (Alaska 1972) (footnote omitted).
29. *Ibid.* This is consistent with the rule followed in federal courts and in a majority of the coastal states.
30. 612 P.2d 1352.
31. *Id.* at 1353.
32. *Ibid.* (footnote omitted).
33. *Id.* at 1353 n.1.
34. *Id.* at 1353-1354 (emphasis added).
35. *Id.* at 1354 (footnote omitted).
36. *Ibid.*
37. *Id.* at 1354 n.4.
38. For a description of these and other geophysical hazards, see *Alaska Coastal Land and Water Use Guide* 3-1 *et seq.* (updated ed. 1982).
39. *Id.* at 3-2.
40. 1964 Ops. Alaska Atty. Gen. No. 6.
41. ACMP, *supra* note 1, at 469.
42. *Id.* at 474.
43. For a brief discussion of this legal doctrine, whose roots lie in early Roman civil law and which evolved at English common law, see the first article in this series. *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
44. Alaska Atty. Gen. letter to commissioner, Alaska Dep't of Nat. Resources dated June 10, 1982, "Management and Uses of Submerged Lands Granted Under Section 6(m) of the Statehood Act," at 20.
45. *Id.* at 21.
46. For a brief discussion of California's public trust doctrine, see *Shore and Beach*, Vol. 49, No. 2, April 1981, pp. 22-23.
47. See, *e.g.*, *Marks* v. *Whitney*, 6 Cal.3d 251, 98 Cal. Rptr. 790, 491 P.2d 374 (1971).
48. See, *e.g.*, *People* v. *California Fish Co.*, 166 Cal. 576, 138 P. 79 (1913).
49. Alaska Const. art. VIII, § 14. The Alaska Supreme Court stated: "A careful reading of the constitutional minutes establishes that the provisions in article VIII were intended to permit the broadest public access to and use of state waters by the general public." *Wernberg* v. *State*, 516 P.2d 1191, 1198-1199 (Alaska 1973) (footnote omitted), *rehearing denied*, 519 P.2d 801 (Alaska 1974).
50. Alaska Stat. § 38.04.005(b) (1984).
51. *Id.* § 38.05.127(a)(2) (1984). Leases of tide and submerged lands for fisheries development must contain reservations of access to navigable waters and other such lands. *Id.* § 38.05.082(a) (1984).
52. *Id.* § 38.05.820(b)(7) (1984).
53. 85 Stat. 688; codified as 43 U.S.C. § 1601 *et seq.*
54. 43 U.S.C. § 1616(b)(1).
55. *Alaska Public Easement Defense Fund* v. *Andrus*, 435 F.Supp. 664, 669, 676-678 (D. Alaska 1977). The decision states: "The court does not hold that a continuous easement along portions of the coastline may never be reserved. Such a reservation,

however, must be necessary to provide public use and access to other public lands which may, of course, include the lands confirmed to the State by the Submerged Lands Act. The difficulty with the present reservation is that it exceeds those criteria [in ANCSA]." *Id.* at 677.

56. U.S. Dep't of Interior, *ANCSA 1985 Study* III-60 (June 29, 1981, Draft).
57. ACMP, *supra* note 1, at 453.
58. *Id.* at 455.
59. *Id.* at 453, 455-458.
60. 6 Alaska Admin. Code § 80.060(b).
61. *Wernberg* v. *State*, *supra*, 516 P.2d 1191.
62. 516 P.2d at 1193.
63. *Id.* at 1195.
64. U.S. Const. art. I, § 8, cl. 3. The Federal Government has paramount power to regulate navigation. *Gibbons* v. *Ogden*, 22 U.S. (9 Wheat.) 1 (1824).
65. The word *riparian*, which technically refers to the bank of a river, is often used interchangeably with the word *littoral*, which more precisely refers to the shore of the ocean or a lake. 516 P.2d at 1194 n.1.
66. *Id.* at 1196.
67. *Id.* at 1198.
68. *Id.* at 1201. The ruling was based on a provision in the Alaska Constitution declaring: "No person shall be involuntarily divested of his right to the use of waters, his interests in lands, or improvements affecting either, except for a superior beneficial use or public purpose and then *only with just compensation* and by operation of law." Alaska Const. art. VIII, § 16 (emphasis added). *Wernberg* v. *State*, *supra*, 516 P.2d at 1199.
69. *Id.* at 1200-1201 (footnote omitted).
70. *Talbot's, Inc.* v. *Cessnun Enterprises, Inc.*, 566 P.2d 1320 (Alaska 1977). An earlier decision concerning the same dispute is reported at 518 P.2d 1064 (Alaska 1974).
71. 566 P.2d at 1324.
72. Alaska Stat. § 38.05.135 *et seq.* (1984).
73. Alaska Const. art. VIII, § 8.
74. *Hammond* v. *North Slope Borough*, *supra*, 645 P.2d 750.
75. The commissioner's "best interest determination" is required by Alaska Stat. § 38.05.035(a)(14) (1984).
76. Note, *Environmental Law: Oil, Eskimos & the Beaufort Sea—Round II*, 12 UCLA-Alaska L.Rev. 167 (1982-83).
77. *Id.* at 170-171. The Supreme Court "endorsed the idea that subsistence activities need to be carefully considered before embarking on any state action that could place them in jeopardy." *Id.* at 171.
78. *Ibid.*
79. Alaska Stat. § 38.05.070 *et seq.* (1984).
80. *Id.* § 38.05.082 *et seq.* (1984). The state attorney general has ruled that this statute does not create an exclusive right of fishery and thus does not violate Alaska Const. art. VIII, § 15. 1983 Ops. Alaska Atty. Gen. No. 3.
81. 1977 Alaska Sess. Laws ch. 84; codified with amendments as Alaska Stat. § 46.40.010 *et seq.* (1984).
82. Established in Alaska Stat. § 44.19.155.
83. Alaska Stat. § 46.40.010 (1984). By the spring of 1985, it is expected that about 20 district coastal management programs will have been approved. Telephone conversation on Jan. 25, 1985, with Amy Kyle, analyst, Office of Coastal Management, State of Alaska.
84. Alaska Stat. § 46.40.040 (1984).
85. 6 Alaska Admin. Code § 80.140.
86. Alaska Stat. §§ 38.05.035, 38.05.330; 11 Alaska Admin. Code. ch. 62.
87. *Alaska* v. *Arctic Maid*, 366 U.S. 199, 203 (1961).
88. *Id.* at 202.

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The Law of the Coast in a Clamshell*

Part XX: The Delaware Approach

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Diminutive Delaware — the nation's second smallest state — offers a curious mixture of contemporary coastal law. Recent state Supreme Court decisions and coastal legislation illustrate this anomaly.

A surprisingly large proportion of the valuable oceanfront uplands and adjacent beaches along the Diamond State's 24.5-mile-long Atlantic Ocean coast are publicly owned due to the historical quirk that this property was not ceded to private parties by the colonial authorities before the Revolutionary War.[1]

Yet, in stark contrast, much of the foreshore, or tidelands, beneath the state's shorelines of Delaware Bay and the Delaware River is privately held under a state rule of property established more than a century ago that enables railroads and other private upland owners to extend the limit of their ownership down to the mean low-water line.[2]

Nevertheless, Delaware's Coastal Zone Act,[3] the cornerstone of the state's Coastal Management Program,[4] contains some of the most stringent restrictions of any such legislation anywhere, including a flat prohibition on new heavy industry along the shoreline.

TITLE TO LANDS WITHIN THE COASTAL ZONE

Delaware's Coastal Zone Act[5] defines the state's coastal zone "as all that area of the State, whether land, water or subaqueous land between the territorial limits of Delaware in the Delaware River, Delaware Bay and Atlantic ocean, and a [landward] line formed by certain . . . highways and roads . . . ."[6]

The state's Coastal Management Program document refers to the zone as the "coastal strip," noting that it is generally about 2 miles wide along the shoreline,[7] but that its width "varies . . . from a few hundred yards north of Wilmington to about 12 miles in the southeastern part of the State."[8]

Coastal zone lands may be legally classified as uplands, tidelands and submerged lands.[9]

A. Uplands

Of Delaware's 24.5 miles of sandy beach bordering the Atlantic Ocean from the mouth of Delaware Bay to the Maryland border, 12 miles are within state parks.[10] These parks encompass some so-called "public lands" — uplands *not* granted into private ownership during the colonial era by the proprietor, William Penn, or his heirs — and are among the state's most popular vacation areas.[11]

In addition to its Atlantic barrier island beaches, the state's shoreline includes 33.5 miles along the Delaware River and 57 miles along Delaware Bay.[12] Most of the coastal uplands adjoining the river and bay are privately held, although there are several federally owned wildlife refuges along the bay.[13]

Over a span of almost a decade, two levels of the Delaware judiciary struggled with diverse historical, legal, equitable and semantic issues raised in a fascinating case involving approximately 13 acres of oceanfront property between Bethany Beach and Fenwick Island in Sussex County.

In 1973 the Court of Chancery, a trial-level equity court, first addressed the question of the legal status of this property, which had *not* been granted into private ownership by the colonial proprietors, *i.e.*, it was still unceded at the time of the Revolution.[14] Through its Highway Department, the state claimed it owned the disputed property by virtue of its sovereignty. On the other hand, two married couples — Emmons B. and Mae T. Phillips and Blaine T. and Janet Cozard Phillips — contended that they and their predecessors had been in exclusive possession of the beach tract since 1896.[15]

During this initial proceeding, the Court of Chancery exhaustively analyzed a previously undecided legal question: the nature of the legal rights in unceded lands held by William Penn and his heirs before the Revolution under written instruments dating back to 1682.[16] The chancellor concluded that "Penn's ['private'] title was inseparable from his [governmental powers derived from the British crown or otherwise] and when the latter ended, so did the former."[17]

In addition, the chancellor cited a series of statutes (dating from 1793) and court rulings (since 1797) bolstering his opinion that the Revolution had ended "the Penn power to deal with the unceded lands" and that the state consistently had asserted state power and jurisdiction over such lands.[18]

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* This is the 20th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the statutory and case law of the State of Delaware concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1985 by Peter H.F. Graber. The author also asserts copyright protection for the first 19 articles in this series.

Consequently, the Court of Chancery denied the Phillipses' motion for summary judgment, ruling the state owned the tract.[19] On appeal, the Delaware Supreme Court in 1974 affirmed the judgment:

> "Peering back over a period of 200 years, we find no ready answers to the questions raised here [including the character of the Penn title before the Revolution]. We find unacceptable, however, the [Phillipses'] basic contention that William Penn's ownership of Delaware land was a *private* right enjoyed in his *private* capacity, as distinguished from a *political* right held in his *public* capacity as the [British crown's] grantee of the 'proprietary colony' which was to become the State of Delaware . . . ."[20]

The Supreme Court concluded "that by right of sovereign succession, title to the lands in dispute passed from the Penn heirs to the State in 1776."[21] While rejecting the Phillipses' plea that legal precedent required a holding that the Penn title to the tract survived the Revolution, the justices noted that "[q]uestions concerning the basic nature of the Penn title, and the impact of the Separation on that title have been raised before [in earlier court cases]."[22]

In what is known as "a case of first impression" — that is, a judicial decision on previously undecided legal issues—the Supreme Court stated that such questions "have never been judicially resolved; they have remained unanswered ever since they were first raised, but never reached, in . . . 1804."[23]

After this 1974 Supreme Court decision, the case returned to the lower Court of Chancery, and the Phillipses changed the main thrust of their attack, now claiming that they and their predecessors had exclusively possessed the disputed oceanfront property since at least 1912.[24] The trial court, denying the state's motion for summary judgment and noting that the action had been pending almost 12 years, remarked in a 1979 opinion: "Hopefully, this matter is at long last now ready for trial."[25] It was indeed finally tried in 1980, and the Phillipses' claims were denied after the trial. Once again, the case was appealed to the state Supreme Court.

In 1982 Delaware's highest tribunal affirmed that judgment in favor of the state.[26] The decision rejected all of the Phillipses' various legal theories, including the claim that at least part of the disputed parcel had passed to their predecessors in title as a matter of law under ancient patents. That argument rested on the premise that the patents described the property as being "on the beach" and "along the beach."[27] The Supreme Court said:

> "The substance of [their] position is that the . . . description language in the patents leads to the conclusion that the easterly boundaries run to the high water mark along the Atlantic Ocean — this because the word '*beach*' means the '*land between the high and low water marks*.' It would follow that if they own to the high water mark, under Delaware riparian law, they would own to the low water mark. *State ex rel. Buckson* v. *Pennsylvania Railroad Co.*, Del.Supr., 267 A.2d 455 (1969). The Court of Chancery correctly stated, 'The question . . . is simply whether the word "*beach*" as a matter of law in every context, and in this particular context, means the land between high and low water marks.'
>
> "In *Pennsylvania Railroad Co., supra*, this court held that '*shore*' meant the area between the high and low water mark. The Phillips[es] argue that '*beach*' and '*shore*' are synonymous and, therefore, the references in the patents to '*beach*' mean '*shore*,' thus placing the eastern-most boundaries at the *low water mark* and the land in dispute in their chain of title."[28]

Painstakingly, the Supreme Court dissected the descriptions of the property language in the two ancient grants in question: the so-called "Salt Meadow Patent" and the "Comforts Pasture Patent."[29] Agreeing with the lower court's interpretation of the language, the high court held that the word " 'beach' in the Salt Meadow [patent] description was *not* intended to be synonymous with 'shore.' "[30] After similarly rejecting the Phillipses' interpretation of the Comforts Pasture tract's patent descriptive language, the Supreme Court concluded "that *no* intent to convey to the foreshore [*i.e.*, tidelands] can be gleaned from the face of the patents as a matter of law," and "that the word 'beach' as used in the patents was *not* intended to mean the area between high and low water mark. . . ."[31]

The Supreme Court also denied the Phillipses' alternative claim based on an adverse possession theory.[32] An 1843 Delaware statute[33] "provided that adverse possession could be claimed against the State "except for salt marshes; and after the 1852 amendment, the words 'beach or shore' were added to the exception."[34] The court, pointing out that the law permitting adverse possession had been repealed in 1953,[35] stated that, as a result, it would have been necessary for the requisite 20-year period of possession under Delaware law to have begun by 1933.[36] The high court upheld the Court of Chancery's finding that the Phillipses had failed to show that, before they took possession in 1939, their predecessors had been in possession during 1933-39.[37] Accordingly, the adverse possession theory did not support the Phillipses' claim against the state.[38]

B. Tidelands

Generally, tidelands are privately owned in Delaware, as is the case in several other Eastern Seaboard states.[39] In a 1969 decision, *State ex rel. Buckson* v. *Pennsylvania Railroad Co.*,[40] the state Supreme Court ruled that a private upland owner, by virtue of his littoral or riparian property rights, holds title to the adjoining tidelands, or foreshore, down to the low-water mark. This appears to have been the first time that the court had been called on to rule definitively on this particular issue, but the private ownership concept was already well established in the state.

As the Delaware Supreme Court said, "This rule of property has prevailed under the decisional law of this State, uncriticized and unchallenged, for more than a century,"[41] citing lower court decisions in 1851, 1854 and 1882.[42] Even the U.S. Supreme Court, in a 1934 interstate boundary case, recognized that, in general, "in Delaware, unlike New Jersey, title to the foreshore is in the riparian proprietor."[43]

With regard to tidelands not deemed to be part of the adjoining private upland owners' property because of pre-Revolutionary War grants, Delaware was vested with title to such lands within its borders on July 4, 1776.[44]

C. Submerged Lands

The federal Submerged Lands Act of 1953[45] confirmed Delaware's dominion and control over submerged lands seaward to 3 geographical miles from the coast. The state's claim to the area beyond the 3-mile limit to the seaward extent of American jurisdiction was rejected by the U.S. Supreme Court in 1975.[46]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Although Delaware is among the handful of coastal states in which the *low*-water mark is generally the legal boundary between public and private property ownership,[47] not all of the privately held lands near the state's coast extend waterward to that line. As mentioned earlier, the state has title to some coastal upland property that had not been ceded into private ownership before the American Revolution. Today, such property remains "public lands" held by the state.[48]

In such areas, the location of the upland/tideland boundary does not appear to be a significant problem because the state also owns adjacent tidelands by virtue of its sovereignty as one of the original states.

B. Tideland/Submerged Land Boundary

During its early days, Delaware departed from the usual common-law rule that private upland ownership along tidal waters extends to the high-water mark, as mentioned above. The state Supreme Court's 1969 *Pennsylvania Railroad* opinion explains:

> ". . . [I]n Delaware a riparian [upland] owner of land fronting on navigable [*i.e.*, tidal] water holds title to the low water mark . . . .
>
> ". . .
>
> ". . . We are impelled to endorse the rule of the cited cases because it has become a recognized rule of property, long adhered to in this State, affecting land transactions and land titles for over a century. The rule has been accepted by the Bar and Bench of this State, without criticism or challenge, and extensive property rights and land titles have been settled in dependence upon it. Moreover, the General Assembly [legislature] has not seen fit to change this rule of property, though last reiterated in *Harlan [& Hollingsworth* v. *Paschall*, 5 Del. Ch. 435, 455] as long ago as 1882.
>
> "This Court is not now free to disturb the time-honored rule of property here under attack; . . . Rules of property, established by decisional law and long acquiesced in, may not be overthrown by the courts except for compelling reasons of public policy or imperative demands of justice. Courts must avoid unsettling judge-made rules affecting the devolution of property, in the absence of a strong requisite public policy . . . ."[49]

Delaware has what appears to be a unique method of defining the "low water mark (or ordinary low water mark or mean low water mark)."[50] In contrast to the *18.6*- or *19*-year tidal epoch usually utilized to define tidal boundaries — as exemplified by the federal *Borax* rule,[51] which involved the definition of the "ordinary high-water mark" — *Pennsylvania Railroad* case decisions call for using "the average daily height of all low water marks over a" *23*-year period, if available.[52]

C. Legal Effect of Physical Changes in the Location of the Shoreline

The gradual, imperceptible physical changes known as accretion and erosion result in a moving tidal boundary in Delaware as in other coastal states. Several of the long series of *Pennsylvania Railroad* decisions touch on this so-called "moving boundary rule."[53]

It is somewhat unclear, however, whether only natural, as distinguished from artificial, movements of the shoreline result in a legal boundary change.

The one dissenting justice in the state Supreme Court's 1971 supplemental opinion in *Pennsylvania Railroad* asserted that "the Railroad holds title to the *natural* mean low water line, *i.e.* the MLW *as it existed before the filling operation* was commenced."[54] Nevertheless, in that case, the trial court found that the state "had failed to establish by a preponderance of the evidence the location of the MLW in 1954," immediately before the railroad began filling the foreshore.[55]

Erosion is an issue addressed by Delaware statutory law and in its Coastal Management Program document. The state's Beach Preservation Act of 1972, as codified,[56] empowers the Department of Natural Resources and Environmental Control to "prevent and repair damage from erosion of public beaches."[57] Comprehensive policies, including the establishment of what is in effect a building setback line along the coast, are articulated in the Delaware Coastal Management Program.[58] Nonstructural erosion control methods are preferred over structures.[59]

DELAWARE'S PUBLIC TRUST DOCTRINE

Recent Delaware court decisions have not extensively addressed issues as to the nature and extent of the public trust doctrine in that state. Under this legal concept, which is rooted in European continental civil law and evolved under the English common law, the public has the right to use tidal waters for certain purposes.[60]

The public trust doctrine was only briefly mentioned in the various *Pennsylvania Railroad* decisions.[61] During this lengthy litigation, which involved the railroad's right to fill a strip of tidelands in the Delaware River, the state Supreme Court in 1969 embraced the lower court's conclusion that "the State's common law concept of control" and the state's reliance upon language in a 1919 Pennsylvania case did not require the railroad to obtain the state's permission before filling.[62]

In the 1982 *Phillips* case,[63] the Delaware Supreme Court alluded to the general public's rights in the so-called "public lands" along the oceanfront that had not been granted into private ownership before the American Revolution. The high court's decision spoke approvingly of the lower court's finding that the Phillipses' "predecessors in title [had] engaged in such activities on the disputed parcel as hunting, gunning, fishing, trapping, oystering, and swimming."[64]

Rejecting the Phillipses' alternative claim that they had adversely possessed the disputed oceanfront lands,

the Supreme Court accepted the lower court's finding that these activities were "merely 'the same activities that any member of the public would likely engage in on public lands.'"[65]

PUBLIC ACCESS RIGHTS

The Delaware Coastal Management Program states:

> "Delaware's Atlantic barrier beach is the State's most important and heavily utilized outdoor recreational resource . . . . This . . . beach area lies within a day's drive of over 21 million people. There are 2.5 million annual visits to the coastal area. . . .
>
> ". . .
>
> "The quality and proximity of Delaware's beaches to the Washington, Baltimore, and Philadelphia metropolitan areas, coupled with the fact that on an average summer weekend 70% of the visitors to the Sussex County coastal area are from out-of-state, make these shores a resource of national significance in addition to being important to the State's residents and economy."[66]

Unlike many other coastal states, "Delaware is fortunate to own a substantial amount of shore and beach land, particularly along the coast, which is readily accessible to the public," according to the state's Coastal Management Program document. "There is, at present, plenty of publicly accessible beachfront in Delaware."[67] But since increasing development and public demand may make the supply of public access inadequate in the future, the Coastal Management Program calls for the state to "undertake efforts to provide such access. . . . ."[68]

Recognizing the "conflicts arising between day-use visitors and coastal [private] property owners," the DCMP document states that, as a result, "some shoreline property [is] being closed to the general public."[69] The DCMP document says: ". . . [L]ocal government has attempted to remedy this situation by requiring public access easements along private beaches as a condition to development approval. The question of who should pay for this access and what, if any, cost-sharing arrangements should be made have yet to be resolved."[70]

PRIVATE LITTORAL RIGHTS

As the previously discussed *Pennsylvania Railroad* case[71] demonstrates, private upland owners in Delaware generally own waterward to the low-water mark. In effect, this state rule of property means that, as a private property right, a littoral or riparian owner of upland fronting on tidal waters—after first having established that he is in fact a littoral or riparian owner—is also entitled to have title to the adjacent foreshore, or tidelands, not as a result of an express grant from colonial or state governmental authorities, but merely because he is the upland owner.[72]

Private owners in Delaware also have certain other rights, subject to the state's regulatory authority.[73]

For example, by statute, littoral owners have the right to "own and hold all bulkheads, docks, wharves, building and piers . . . on the front of their littoral holdings . . . and [to] lay any steamboat, vessel or other craft at the same, . . ."[74]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

"[U]ngranted submerged tidelands owned by this State, whether within or beyond [its] boundaries" may be leased for mineral exploration and exploitation by the governor and the secretary of the Delaware Department of Natural Resources and Environmental Control.[75] The "[s]ecretary may issue oil and gas leases underlying the Atlantic shore," and "may . . . grant easements for mineral exploration and exploitation underlying that part of the surfaces of the Atlantic shore owned by the State at such times and at such places as [he] finds necessary to permit the extraction and transportation of oil, gas, sulphur or other minerals from State, federal or private lands."[76]

As pointed out in the Delaware Coastal Management Program document:

> ". . . Delaware contributes significantly to the Nation's mineral-related production. This contribution may become more significant if oil and gas are discovered offshore, in particular if they are discovered under Delaware's submerged lands . . . . The leasing of State lands for mineral extraction will become important only if economically feasible quantities of minerals are discovered."[77]

B. Regulatory Functions

Delaware's coastal zone lands and waters are subject to a variety of regulatory programs.

The Delaware Coastal Zone Act (CZA) of 1971[78] is significant for a number of reasons. Of particular importance is its flat ban on "new heavy industry in [the state's bay and coastal] areas, which industry is determined to be incompatible with the protection of [the] natural environment in [the state's bay and coastal] areas."[79] The law also states that "prohibition against bulk product transfer facilities in the coastal zone is deemed imperative."[80]

With regard to uses allowed under the Delaware CZA, permits must be obtained from the state.[81] The statute enumerates various factors, such as the environmental impact, economic effect and aesthetic effect, which are to be considered by the secretary of the Department of Natural Resources and Environmental Control and the State Coastal Zone Industrial Control Board.[82]

The Beach Preservation Act of 1972,[83] another comprehensive statutory scheme, deals with beach erosion control. Under this law, certain "acts destructive of beaches" are made punishable as crimes.[84] "[C]onstruction of any kind" seaward of a state-described "building line" generally paralleling the coast is prohibited unless a permit or letter of approval is obtained from the Department of Natural Resources and Environmental Control.[85]

Another law, the Wetlands Act,[86] requires state permits before certain specified activities are undertaken in the state's wetlands.[87] The activities thus regulated are "dredging, draining, filling, bulkheading, construction of any kind, including but not limited to, construction of a pier, jetty, breakwater, boat ramp, or mining,

drilling, or excavation."[88] Applications for permits are made to the secretary of the State Department of Natural Resources and Environmental Control,[89] and permit denials may be appealed to the newly created Environmental Appeals Board.[90]

ACKNOWLEDGMENTS

The author is grateful to David S. Hugg III, program manager, Delaware Coastal Management Program, Department of Natural Resources and Environmental Control, and June D. MacArtor, attorney at law and chief, investigative and counseling unit, Division of Consumer Affairs, Department of Community Affairs, and former deputy attorney general, State of Delaware, for providing some of the source materials cited in this article.

REFERENCES

1. Delaware's "public lands" are "properties along the Atlantic Coast between Cape Henlopen and Fenwick Island which have never been transferred from the public domain. They currently include the Cape Henlopen and Delaware Seashore State Parks and portions of the Assawoman Wildlife Area." *Delaware Coastal Management Program and Final Environmental Impact Statement* pt. II, § 5.B.1., p. 1, pt. IV, pp. 2-3 (1979) [hereinafter cited as DCMP].

   In lengthy litigation culminating in *Phillips* v. *State ex rel. Dep't of Nat. Res.*, 449 A.2d 250 (1982), the Delaware Supreme Court upheld the state's ownership of 13 acres of oceanfront property claimed by private parties under various legal theories. For a discussion of this recent decision and the three earlier decisions in the same case, see "Uplands" under "Title to Lands Within the Coastal Zone," *infra*.
2. DCMP, *supra* note 1, at pt. II, § 2.B., pp. 1-6, pt. IV, p. 2.

   A series of five state Supreme Court and trial court decisions between 1967 and 1971 reaffirmed this ancient rule of property of benefiting private littoral and riparian property owners. For a discussion of the Supreme Court's decision in *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, 267 A.2d 455 (1969), and supplemental decision, 273 A.2d 268 (1971), and the prior trial court decisions, see "Tidelands" under "Title to Lands Within the Coastal Zone" and "Tideland/Submerged Land Boundary" under "Determination of Tidal Boundaries," *infra*.

   Of the approximately 90 miles of uplands along the Delaware Bay and Delaware River shorelines, an estimated 22.5 miles are owned by various levels of government, ranging from the United States to municipalities. Telephone conversation on May 6, 1985, with June D. MacArtor, attorney at law and chief, investigative and counseling unit, Division of Consumer Affairs, Department of Community Affairs, and former deputy attorney general, State of Delaware.
3. Del. Code Ann. tit. 7, ch. 70. For a brief discussion of this statute, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
4. The Delaware Coastal Management Program was prepared under the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq*. The program gained federal approval in 1979.
5. Del. Code Ann. tit. 7, § 7001 *et seq*.
6. *Id.* § 7002.
7. DCMP, *supra* note 1, at app. 20.
8. *Id.* at pt. II, § 5.A.4., p. 1.
9. This classification is used for convenience and consistency with other articles in this series. The state statutory scheme relating to "underwater lands," originally enacted in 1953, uses the term *tidelands* to refer to lands between the lines of mean high water and mean low water. Del. Code Ann. tit. 7, § 6101 (7). In Delaware, however, the word *foreshore* is often used to refer to tidelands.
10. DCMP, *supra* note 1, at pt. II, § 5.A.2., p. 1.
11. *Id.* at pt. II, § 5.B.1., pp. 1-4. These "public lands" are accorded special treatment under the Delaware Coastal Management Program, which establishes recreational and ecological priorities for their use. *Id.* at p. 4.
12. *Id.* at pt. IV, p. 2.
13. Federal lands are excluded from the state's coastal zone under a provision of the federal Coastal Zone Management Act of 1972, as amended. 16 U.S.C. § 1453(a). See *supra* note 2 regarding governmental ownership of an estimated 25% of the uplands along the Delaware Bay and Delaware River shorelines.
14. *State* v. *Phillips*, 305 A.2d 644 (Del. Ch. 1973).
15. *Id.* at 645.
16. "The origin of title to all land in [what is now] Delaware is found in two deeds of feoffment and two leases from the Duke of York to William Penn on August 25, 1682 for lands both within the twelve-mile circle around the Town of New Castle and south of that circle to the Maryland boundary. Title inured by estoppel to Penn and his heirs when letters patent were issued to the Duke of York by King Charles II of England on March 22, 1683. Prior to that time, the Duke of York had been in continuous possession of the lands (except for a brief period in 1673–1674 from September 30, 1664 when he took them from the Dutch." *Ibid.*, citing, among other authorities, *New Jersey* v. *Delaware*, *supra*, 291 U.S. 361.
17. 305 A.2d at 649.
18. *Id.* at 651-654.
19. *Id.* at 655.
20. *Phillips* v. *State ex rel. Dep't of Nat. Res.*, 330 A.2d 136, 139 (1974) (emphasis added; footnote omitted).
21. *Id.* at 141.
22. *Id.* at 143.
23. *Ibid.*
24. *State* v. *Phillips*, 400 A. 2d 299, 301 (Del. Ch. 1979).
25. *Id.* at 310.
26. *Phillips* v. *State ex rel. Dep't of Nat. Res.*, 449 A.2d 250 (1982).
27. *Id.* at 252.
28. *Id.* at 252-253 (emphasis added).
29. *Id.* at 253-254. As the court explained: "In determining the intended meaning of the word 'beach' in the patents, we must view it within its contextual framework." *Id.* at 253.
30. *Id.* at 254 (emphasis added).
31. *Ibid.* (emphasis added).
32. *Id.* at 255-256.
33. 9 Del. Laws 454 (1843).
34. 449 A.2d at 255.
35. 49 Del. Laws 386 (1953).
36. 449 A.2d at 255.
37. *Ibid.*
38. *Id.* at 256.
39. For brief descriptions of tidelands ownership rules in some of these other states, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-14 (Massachusetts); Vol. 52, No. 3, July 1984, pp. 17-18 (Maine); Vol. 53, No. 1, January 1985, pp. 8-9 (Virginia). Other East Coast states in which tidelands are generally in private ownership are New Hampshire and Pennsylvania. These states have not yet been the subject of installments in this series, but see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18, 20 n.33.
40. 267 A.2d 455 (1969); see also supplemental decision of the Supreme Court in the same case, 273 A.2d 268 (1971).

    The case has a lengthy history, originating as an action brought by Delaware's attorney general to declare that the state had certain rights in the foreshore (*i.e.*, tidelands), or the strip between the high- and low-water marks, along the westerly bank of the Delaware River. The Pennsylvania Railroad Company claimed it did not need the state's consent before artificially filling the strip.

    In the earliest in the series of reported decisions, the Superior Court—the state's trial court—denied a motion for summary judgment filed by the defendant railroad. 228 A.2d 587 (Del. Super. Ct. 1967).

    In the second reported decision, the Superior Court held that the railroad could fill the foreshore without the state's consent when the fill would not interfere with navigation, fishing or improvement of the river. 237 A.2d 579 (Del. Super. Ct. 1967).

    In the third reported Superior Court decision, it was decided (1) that the state had not demonstrated that a low-water mark survey

made when the railroad began filling the foreshore was accurate and more reliablethan a later survey resulting in a more waterward boundary than the earlier survey, and (2) that the railroad could not be held responsible for having filled in the tidelands below the low-water mark shown on the earlier survey. 244 A.2d 80 (Del. Super. Ct. 1968).

The Delaware Supreme Court's 1969 decision and 1971 supplemental decision, the citations of which are set forth in the first line of this footnote, followed these three reported trial court decisions. In its original opinion, the Supreme Court held that, under Delaware law, a riparian owner (*e.g.*, an owner of land along the Delaware River, a tidal waterway) holds title waterward to the low-water mark, and that as a consequence, the state is powerless to prohibit the owner's filling of the foreshore. 267 A.2d 455, 459-460. The Supreme Court's supplemental opinion rejected the state's motion to permit core drillings in an effort to definitely establish the boundary's location. 273 A.2d 268, 270.

For a further discussion of the boundary aspects of this lengthy litigation, see "Tideland Submerged Land Boundary" under "Determination of Tidal Boundaries," *infra*.

41. *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 267 A.2d at 457.
42. *Buckel* v. *Polk*, 5 Del. (1 Harr.) 325 (1851); *State* v. *Reybold*, 5 Del. (1 Harr.) 484 (1851); *Harlan & Hollingsworth Co.* v. *Paschall*, 5 Del. Ch. 435 (1882) ("Whatever the common law of England might have been, or is now, whatever the law of other States may be on this subject, I feel bound to recognize as true . . . the law decided by our own law courts, a riparian proprietor or owner of land fronting upon a navigable river holds to the low water mark").
43. *New Jersey* v. *Delaware*, 291 U.S. 361, 375 (1934).
44. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842); *Phillips* v. *State ex rel. Dep't of Nat. Res.*, 330 A.2d 136, 141 (1974).
45. 67 Stat. 29, codified at 43 U.S.C. § 1301 *et seq.*
46. *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975).
47. For a discussion of Delaware's rule, see "Tidelands" under "Title to Lands Within the Coastal Zone" and *supra* note 39.
48. DCMP, *supra* note 1, pt. II, § 5.B.1., pp. 5-6; see also Del. Code Ann., tit. 7, ch. 45, esp. § 4518.
49. *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 267 A.2d at 457-458.
50. *State* v. *Pennsylvania R.R. Co.*, *supra*, 228 A.2d at 601. This Superior Court opinion is one of the earlier decisions in the same case that culminated in the Delaware Supreme Court's 1969 decision reported at 267 A.2d 455 and discussed in the text *infra* accompanying note 10.
51. *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10, 22 (1935).
52. *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 273 A.2d at 269 n.2; *State* v. *Pennsylvania R.R. Co.*, *supra*, 228 A.2d at 601. The use of this unusual length of time appears to have been dictated by the facts of this particular case, and it is unknown what the Delaware Supreme Court might hold to be the appropriate method under other circumstances.
53. See, *e.g.*, *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 273 A.2d at 269-270; *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 244 A.2d at 81 n.6, 82.
54. 273 A.2d at 270 (Hermann, J., dissenting). For this assertion, he cited the Supreme Court's earlier decision in which that court wrote: ". . . The Trial Court did not state that the shifting boundary principle is not applicable in a Delaware case; indeed, the Trial Court stated that mean low water mark 'is a "shifting" line—it moves' . . . . The Trial Court stated that, for the reasons carefully set forth in its opinion, the shifting boundary principle has no applicability in the demarcation phase of this case . . . ." 267 A.2d at 459 (footnote omitted).
55. *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 244 A.2d at 83. The Supreme Court approved the trial court's "findings and conclusions in this connection." 267 A.2d at 459.
56. Del. Code. Ann. tit. 7, ch. 68.
57. *Id.* § 6803 (Supp. 1984).
58. DCMP, *supra* note 1, at pt. II, § 5.A.2., pp. 11-17.
59. *Id.* at pp. 16-17.
60. For a brief discussion of the origin, development and American expansion of the public trust doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
61. For a fuller discussion of these decisions, see "Title to Lands Within the Coastal Zone" and "Determination of Tidal Boundaries," *supra*.
62. *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 267 A.2d at 460.
63. *Phillips* v. *State ex rel. Dep't of Nat. Res.*, *supra*, 419 A.2d 250.
64. 419 A.2d at 256.
65. *Ibid.*
66. DCMP, *supra* note 1, at pt. II, § 5.A.2., p. 1.
67. *Id.* at § 5.A.2., p. 18.
68. *Ibid.*
69. *Id.* at § 5.A.2., p. 9.
70. *Ibid.*
71. *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 267 A.2d 455, 273 A.2d 268 (supp. op.). For a detailed discussion of these decisions and the previous lower court opinions in the same case, see "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
72. The Court of Chancery, is one of the earlier *Pennsylvania Railroad* decisions, best explains this long-established Delaware rule. See *State ex rel. Buckson* v. *Pennsylvania R.R. Co.*, *supra*, 228 A.2d at 596-600.
73. See "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
74. Del. Code Ann. tit. 23, § 1511.
75. Del. Code Ann. tit. 7, § 6102(a). The statutory phrase *submerged tidelands* is confusing; generally, tidelands are defined as those lands lying between the lines of mean high and mean low water, and submerged lands are defined as those lands lying waterward from the mean low-water line. Perhaps the word "and" was inadvertently omitted between the words "submerged" and "tidelands."
76. *Id.* § 6102(d).
77. DCMP, *supra* note 1, at pt. II, § 5.C.4., p. 1.
78. Del. Code Ann. tit. 7, ch. 70.
79. *Id.* § 7001. For a discussion of this and other provisions in the act, see Legislative Note, "Legislation—the Delaware Coastal Zone Act," 21 Buffalo L. Rev. 181 (1971-72).

The statute, as amended, contains a detailed definition of "[h]eavy industry use," providing, in part, that the term "means a use characteristically involving more than 20 acres, and characteristically employing . . . smokestacks, tanks, distillation or reaction columns, chemical processing equipment, scrubbing towers, pickling equipment, and waste-treatment lagoons; . . . [such as] oil refineries, basic steel manufacturing plants, basic cellulosic pulp-paper mills, and chemical plants such as petrochemical complexes." Del. Code Ann. tit. 7, § 7002(e).

80. *Id.* § 7001. Another provision in the Coastal Zone Act states in part: "Heavy industry uses of any kind not in operation on June 28, 1971, are prohibited in the coastal zone and no permits may be issued therefor. In addition, offshore gas, liquid, or solid bulk product transfer facilities which are not in operation on June 28, 1971, are prohibited in the coastal zone, and no permit may be issued therefor." *Id.* § 7003 (Supp. 1984).
81. *Id.* § 7004.
82. *Id.* §§ 7004-7007.
83. Del. Code Ann. tit. 7, ch. 68.
84. *Id.* § 6801 (Supp. 1984).
85. *Id.* §§ 6801, 6802 (Supp. 1984). The department's "authority . . . to prevent and repair damages from erosion shall extend to *privately owned beaches* whenever, in the judgment of the Governor, a dangerous condition constituting an emergency exists . . . ." *Id.* § 6804 (Supp. 1984) (emphasis added).
86. Del. Code Ann. tit. 7, ch. 66.
87. The law defines "wetlands" as meaning, in part, "those lands *above* the mean *low* water elevation including any bank, marsh, swamp, meadow, flat or other low land *subject to tidal action* . . . along the Delaware Bay and Delaware River, [other named rivers and bays,] the coastal inland waterways, or along any inlet, estuary or tributary waterway or any portion thereof, *including those areas which are now or in this century have been connected to tidal waters, whose surface is at or below an elevation of 2 feet above local mean high water*, and upon which may grow or is capable of growing any . . . of [a lengthy list of] plants. . . ." *Id.* § 6603(8) (emphasis added).
88. *Id.* § 6303(1).
89. *Id.* §§ 6607-6609.
90. *Id.* §§ 6303(c), 6610 (Supp. 1984).

The Law of the Coast in a Clamshell*

Part XXI: The Mississippi Approach

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AFTER A 26-MILE LONG manmade beach was built in the 1950s to protect a seawall, with the Federal Government's financial assistance, the Mississippi Supreme Court held that the adjoining private landowners were entitled to the sandy strip as an artificial accretion to their property.[1]

But the U.S. Court of Appeals for the Fifth Circuit disagreed. In 1969 the federal tribunal ruled that the state court's holding violated the Mississippi Constitution and that the beach must be open to the general public.[2]

While the legal dispute over the manmade beach was unusual, it illustrates the competing public and private interests along the Magnolia State's 369-mile tidal shoreline.[3] The 1980 Mississippi Coastal Program is an attempt to reconcile these interests and to balance development with environmental concerns.[4]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Three counties comprise Mississippi's coastal zone under state law.[5] The zone extends to the outer limits of the U.S. territorial sea, encompassing coastal waters and barrier islands.[6] Legally, the zone's lands may be divided into uplands, tidelands and submerged lands.[7]

A. Uplands

Most uplands along the shores of the Gulf of Mexico and Mississippi Sound are privately owned; however, three barrier islands are within the Gulf Islands National Seashore.[8]

B. Tidelands

Upon admission to the Union in 1817, Mississippi was vested with title to tidelands within its borders under the equal-footing doctrine.[9] This title has been recognized by the state's Supreme Court in a line of decisions dating back to 1857.[10]

The question of whether the state can legally convey lands beneath tidal waters to private parties has caused the court some difficulty, however. The court's response to this question varied in three cases involving Deer Island, a small island in Mississippi Sound near Biloxi, and the adjacent tide-flowed mudflats.[11] The island long had been looked upon as a convenient area for the expansion of Biloxi, a densely populated city located on a peninsula bordered on three sides by the sound and Biloxi Bay.

In the 1920s developers who had purchased tidelands adjoining Deer Island from the state planned to dredge and fill these lands, creating an artificial island as a site for hotels and residences. The Mississippi Supreme Court invalidated the state's tideland patents in *Money* v. *Wood*[12] in 1928, citing Article 4, Section 81 of the state Constitution of 1890. That provision prohibits legislative authorization of "the permanent obstruction of any of the navigable waters." The court said the provision had been designed to prevent the conveyance of lands under such waters "to private owners for private purposes."[13]

Two other state constitutional provisions were relied upon by the court in 1959 in holding another Deer Island development project void in *Giles* v. *City of Biloxi*.[14] A city commission had contracted with a corporation, owner of 90 percent of the island, under a special statute. The contract contemplated a 99-year lease from the commission to the corporation of shallow tidelands around the island that were to be reclaimed by the commission. The court held the special statute violated the constitutional requirement that only general laws could authorize the granting of state lands to any person or corporation.[15] In addition, the court ruled the contract between the commission and the corporation violated the constitutional provision prohibiting municipal loans of credit to private corporations.[16]

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* This is the twenty-first in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Mississippi concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1986 by Peter H.F. Graber. The author also asserts copyright protection for the first 20 articles in the series.

In 1960, a year following the *Giles* decision, the Legislature enacted a general law providing for the development of offshore islands in Mississippi Sound.[17] This law authorizes a city's park commission to lease or sell to private persons reclaimed submerged lands when it finds such property is unnecessary for park, recreational or other public purposes.

The Biloxi Park Commission, owner of part of Deer Island, had been granted some adjacent tidelands by the state. Under this new statutory scheme, the commission planned to acquire the rest of the island and additional surrounding mudflats. Some of the mudflats were to be filled to expand the dry land area as part of an overall development project, with filled-in lots to be sold to private parties. Under the plan, about half of the expanded island was to be devoted to private residential, commercial and resort development.[18]

In the 1967 *Treuting* decision,[19] the Mississippi Supreme Court upheld Biloxi's project. The case means that, under certain circumstances, private parties can obtain title to filled-in tidelands. The court stated that Article 4, Section 81 of the state Constitution "has nothing to do with the alienation of mud flats and waters not suitable for navigation in fact, or the sale of submerged lands."[20] While this statement appears to be inconsistent with the language in the *Money* case about Section 81 of the Constitution, the court simply said that language was unnecessary to the earlier decision.

The "overall purposes of the proposed development of Deer Island" would promote navigation, fishing and other public purposes, the court declared in the *Treuting* decision.[21] "If the totality of the development promotes the public interest in general, the incidental private ownership of individual lots does not negative the comprehensive public purpose."[22]

Despite the court's approval of the ambitious Deer Island development proposal in 1967, the island still is generally unimproved.[23] The 1980 Mississippi Coastal Program document designates the island as a special management area and cites its "enormous potential for public recreation, research and education."[24]

C. Submerged Lands

Under the federal Submerged Lands Act of 1952,[25] Mississippi has dominion and control of submerged lands within a 3-geographical-mile strip of its coast. The U.S. Supreme Court has rejected the state's claim to the area beyond the 3-mile-limit.[26]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

In common with most coastal states, Mississippi utilizes the high-water line as the legal boundary between privately owned littoral property and sovereign tide-flowed lands.[27]

The state Supreme Court does not appear to have precisely defined the upland/tideland boundary, although some court decisions have referred to the "mean high tide."[28] A student legal comment suggests that Mississippi's boundary is based on the tidal datum of mean high water as determined over an 18.6-year tidal epoch.[29]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Under Mississippi law, private littoral owners are entitled to gradual, natural accretions to their upland property.[30] But they may not extend their ownership by artificially reclaiming the adjoining state-owned tidelands.[31]

What are the rights of private upland owners when artificial additions to their property result from the acts of governmental entities? This question arose when a 26-mile-long manmade beach was built along the Harrison County coast. Because state and federal courts responded to the question differently in two separate lawsuits, there is some uncertainty on the point.

The county had constructed a seawall in the 1920s to protect a federal highway and coastal property. The 1924 state law under which the seawall was built also authorized the county to "erect and maintain . . . [a] sloping beach" for protective purposes. Later, the sand south of the seawall was washed away and the wall itself was severely undermined by a 1947 hurricane. Since the county still owed $900,000 on the original seawall project, federal financial assistance was sought. In the early 1950s the United States contributed one-third of the cost of building an artificial beach to protect the seawall and highway.[32]

In *Harrison County* v. *Guice*, a 1962 decision involving a small stretch of this manmade beach, the Mississippi Supreme Court held "that where the owner of the upland had no part in creating the artificial addition or addition, such owner acquires title in fee to such additional land."[33] The court said that the "essential feature" of upland owners' littoral rights "is direct and exclusive access to the waters adjoining the uplands."[34]

Meanwhile, a federal suit had been brought by the United States against Harrison County concerning the entire strip of manmade beach. The Federal Government sought to enforce its 1951 contract with the county under which the county, in exchange for federal financial assistance, had agreed to assure perpetual public use of the beach. The United States alleged that local peace officers had discriminated against members of the public using the beach.[35]

After the lower federal court had dismissed the suit,[36] the U.S. Court of Appeals for the Fifth Circuit reversed. In its 1968 decision in *United States* v. *Harrison County*,[37] the Fifth Circuit ruled that under a 1948 state law, a 1950 county Board of Supervisors'

resolution and the 1951 contract between the county and the United States, the county was obligated to maintain the artificially created beach as a public beach.[38] The federal tribunal rejected the argument that the county's contractual obligation should not be enforced because of the Mississippi Supreme Court's 1962 *Guice* decision.[39]

The Fifth Circuit Court of Appeals stated:

> ". . . [T]he obvious effect of the *Guice* decision is to award this beach, free of charge, to the adjoining landowners. By the application of the common law doctrine of artificial accretion the private landowners were denominated the donees of land which unquestionably belonged to the State when the improvements began. We are of the view that under the facts of this case this cannot be squared with Section 95 of the Mississippi Constitution of 1890. . . .
>
> "We assume that this provision was not called to the attention of the Supreme Court of Mississippi, as it is not discussed in the opinion. . . .
>
> ". . The common law doctrine of artificial accretion must yield to the command of the Mississippi Constitution as to the disposition of state owned lands."[40]

Although disapproving of the *Guice* decision, and emphasizing that it did not bind the United States, which had not been a party to that suit, the Fifth Circuit did concede that the Mississippi Supreme Court has "primary jurisdiction in the settlement of disputed land titles" within the state.[41] It also declared that public use of the artificially built beach "cannot unreasonably interfere with the littoral rights of the adjoining landowners," including "the enjoyment . . . of access to the water."[42]

Despite the Fifth Circuit Court of Appeals' decision in *United States* v. *Harrison County,* the Mississippi Supreme Court subsequently did not refer to that case when again addressing the issue of artificial accretions. Instead, in a suit involving title to property created between an island in a bayou and the adjoining uplands, the court reiterated the *Guice* rule that "when artificial accretions are cast upon the land of the landowner by either the Corps of Engineers or some stranger without the intervention of the upland owner such artificial accretion inures to the title of the upland owner."[43]

MISSISSIPPI'S PUBLIC TRUST DOCTRINE

The public trust doctrine, under which the public's rights of navigation and fishing in tidal waters are protected, is well established in Mississippi. The concept has been referred to in a number of cases involving public and private rights in tidelands.[44]

Even in the 1967 *Treuting* decision,[45] upholding the Deer Island development proposal that contemplated the sale of filled-in tidelands to private parties, the Mississippi Supreme Court focused on the public trust. It emphasized that the proposal would "promote navigation and fishing, and . . . give some protection to the Biloxi port."[46] The court stated that "the development as authorized by the statutes is consistent with the public trust"[47] and that "the incidental private ownership of parties of the development is not inconsistent with the public trust in submerged lands."[48]

Subsequently, the court seemed to take a less flexible view of the public trust doctrine. In the 1972 *International Paper Company* case,[49] the court examined the paper company's claim that it owned marshy lands known as Lowry Island under state patents issued in 1895, 1897 and 1917. The court said that upon Mississippi's statehood in 1817 the area had been tidelands subject to the public trust. While conceding that, as a result of natural accretion, the lands in dispute had emerged above mean high tide before issuance of the state's patents, the court said such lands could not be conveyed for private benefit because they remained trust lands.[50] The decision has been sharply criticized by legal commentators because its application could jeopardize the rights of many long-time private owners of formerly tide-flowed lands.[51]

In addition to the case law, Mississippi has a public trust statute, providing in part:

> ". . . [A]ll beds and bottoms of rivers, streams, bayous, lakes, bays, sounds and inlets bordering on or connecting with the Gulf of Mexico or Mississippi Sound . . . shall be, continue, and remain the property of the State of Mississippi, to be held in trust for the people thereof until title thereto shall be legally divested. . . ."[52]

PUBLIC ACCESS RIGHTS

As a result of the previously discussed decision of the U.S. Court of Appeals for the Fifth Circuit in *United States* v. *Harrison County,*[53] public access to that county's 26-mile-long manmade beach is assured.

Mississippi's Supreme Court does not appear to have specifically addressed questions concerning public access to tidal waters. Its public trust doctrine rulings – except perhaps for the 1967 *Treuting* case[54] – suggest that the court might be persuaded to favor public access over private rights under certain circumstances if the competing interests could not be reconciled.

Shorefront access is discussed in the Mississippi Coastal Program document. It states:

> ". . . While shorefront access is typically thought of as beach access, the coastal program expresses a much wider concern. The availability of beaches is a relatively minor problem on the coast. The major shorefront access concerns on the coast are access to water for recreational boating, access for fishing, [and] access for passive visual enjoyment of the waterfront. . . ."[55]

In the coastal program, four beaches and Deer Island are designated for special management as shorefront access areas.[56]

PRIVATE LITTORAL RIGHTS

Private upland owners' littoral rights are spelled out in court decisions and statutory law in Mississippi.

In the 1962 *Guice* case,[57] involving title to an artificially created beach – the holding in which is questionable in light of a later federal decision[58] – the state Supreme Court said: "Littoral rights include the rights of navigation, boating, swimming and fishing; and all these rights depend upon access to the water from the littoral owners' land."[59]

Later, in the 1967 *Treuting* decision,[60] the Mississippi Supreme Court cited with approval a Florida case in which "an unobstructed view, [and] ingress and egress over the foreshore from and to the water" were referred to as littoral rights.[61] On the other hand, in a suit to enjoin construction of a small craft harbor, the court was not persuaded by a restaurant owners' argument that their littoral rights included "the view of the sea and natural breezes from the sea."[62]

A Mississippi statute provides that upland owners along the Gulf of Mexico or Mississippi Sound have the "sole right of planting and gathering oysters and erecting bathhouses and other structures in front of" their land to specified distances.[63]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The Mississippi Commission of Natural Resources is authorized to lease state-owned tide and submerged lands for extraction of oil, gas and other minerals. The commission's authority is administered by the Bureau of Geology and Energy Resources of the Department of Natural Resources.[64]

B. Regulatory Functions

Mississippi's Coastal Wetlands Protection Law[65] was enacted in 1973. The law declares the state's public policy to be "the preservation of the natural state of the coastal wetlands . . ., except where a specific alteration of specific coastal wetlands would serve a higher public interest. . . ."[66] Under this law, permits are generally required for enumerated activities in the coastal wetlands, including dredging, filling and the erection of certain structures.[67] The Bureau of Marine Resources of the state Department of Wildlife Conservation administers the regulatory scheme.[68]

The Wetlands Law is a key component of the Mississippi Coastal Program, which was approved by the Federal Government in 1980. In addition to the Bureau of Marine Resources, the coastal program is administered by two bureaus in the Department of Natural Resources – the Bureau of Pollution Control and the Bureau of Land and Water Resources – and the Department of Archives and History.[69]

ACKNOWLEDGMENTS

The author is grateful to Mack Cameron, special assistant attorney general, and Larry Lewis, staff scientist, Bureau of Marine Resources, Department of Wildlife Conservation, State of Mississippi, for providing some of the source material cited in this article.

REFERENCES

1. *Harrison County* v. *Guice*, 244 Miss. 95, 140 So.2d 838 (1962). For a brief discussion of this case, see "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *infra*.
2. *United States* v. *Harrison County*, 399 F.2d 485 (5th Cir. 1968), discussed in same portion of article.
3. *Mississippi Coastal Program and Final Environmental Impact Statement* VII-7 (1980) [hereinafter cited as MCP].
4. *Id.* at I-2-3.
5. Miss. Code Ann. § 57-15-6; MCP, *supra* note 3, at II-6, IX-7-8.
6. Under federal law, however, the islands within the Gulf Islands National Seashore are excluded from the state's coastal zone for purposes of the federal Coastal Zone Management Act of 1972. 16 U.S.C. § 1453(a); MCP, *supra* note 3, at IX-8-9.
7. This classification is used for convenience and consistency with other articles in this series. However, the term *submerged lands* is sometimes used in Mississippi law to mean what this series refers to as *tidelands*, *i.e.*, lands between the lines of mean high water and mean low water. See, *e.g.*, the Coastal Wetlands Protection Law, Miss. Code Ann. § 49-29-5(a) (Supp. 1984) ("submerged water-bottoms below the watermark of ordinary high tide").
8. The multistate national seashore includes Ship, Horn and Petit Bois Islands in Mississippi. See *supra* note 6.
9. For a brief discussion of the equal-footing doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
10. *Martin* v. *O'Brien*, 34 Miss. 21 (1857).
11. *Treuting* v. *Bridge & Park Com'n of City of Biloxi*, 199 So.2d 627 (Miss. 1967); *Giles* v. *City of Biloxi*, 237 Miss. 65, 112 So.2d 815 (1959); *Money* v. *Wood*, 152 Miss. 17, 118 So. 357 (1928).
12. 152 Miss. 17, 118 So. 357.
13. *Id.* at 29, 118 So. at 359.
14. 237 Miss. 65, 112 So.2d 815.
15. Miss. Const. of 1890, art. 4, § 90.
16. *Id.* art. 7, § 183.
17. 1960 Miss. Laws ch. 434, as amended; codified at Miss. Code Ann. §§ 5974-01 *et seq.*
18. *Treuting* v. *Bridge & Park Com'n of Biloxi*, *supra*, 199 So.2d at 631.
19. 199 So.2d 637.
20. *Id.* at 632.
21. *Id.* at 634. This part of the *Treuting* decision, dealing with the public trust doctrine, is discussed further under "Mississippi's Public Trust Doctrine," *infra*.
22. *Id.* at 633.
23. Telephone conversation on Sept. 6, 1985, with Mack Cameron, special assistant attorney general, State of Mississippi.
24. MCP, *supra* note 3, at VI-13. The document discusses the preliminary Deer Island Management Plan, which calls for recreational day use and overnight use as well as research and archeological zones. *Id.* at VI-13-14.
25. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*

26. *United States* v. *Louisiana*, 363 U.S. 1, 79-82 (1960). A legal writer has argued that application of the principles of international law would result in the expansion of Mississippi's territorial sea. Wolfe, *International Law and the Regime of the Sea in Mississippi's Coastal Zone*, 2 Miss. C.L. Rev. 239 (1981).
27. *State ex rel. Rice* v. *Stewart*, 184 Miss. 202, 184 So. 44 (1938), *sugg. error overruled*, 185 So. 247, (1939); *Martin* v. *O'Brien*, *supra*, 34 Miss. 21.
28. See, *e.g.*, *Moore* v. *Kuljis*, 207 So.2d 604, 607 (Miss. 1967); *Harrison County* v. *Guice*, *supra*, 244 Miss. 95, 106, 109, 140 So.2d 838, 842, 849. For regulatory purposes, the Coastal Wetlands Protection Law refers to "the watermark of ordinary high tide." Miss. Code Ann. § 49-27-3 (Supp. 1984).
29. Recent Decisions, 44 Miss. L.J. 322, 324 n.8 (1973). The student, however, did not cite any Mississippi case law as authority for his statement and incorrectly stated that the 18.6-year tidal cycle is the "English common law standard." It actually is the American federal rule enunciated in *Borax, Ltd.* v. *City of Los Angeles*, 266 U.S. 10 (1935). For a brief discussion of the English rule and *Borax*, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18.
30. *Harrison County* v. *Guice*, *supra*, 244 Miss. at 107, 140 So.2d at 842.
31. *Id.* at 107, 140 So.2d at 842; *Giles* v. *City of Biloxi*, *supra*, 237 Miss. 65, 112 So.2d 815.
32. This factual background is derived from *Harrison County* v. *Guice*, *supra*, 244 Miss. 95, 140 So.2d 838, and *United States* v. *Harrison County*, *supra*, 399 F.2d 485. There are discrepancies in some of the facts set forth in the two decisions.
33. 244 Miss. at 107,140 So.2d at 842. Other Mississippi cases holding that private owners are entitled to accretions, whether natural or manmade, are *Moore* v. *Kuljis*, *supra*, 207 So.2d 604; *Skrmetta* v. *Moore*, 227 Miss. 199, 86 So.2d 46 (1956); and *Skrmetta* v. *Moore*, 202 Miss. 585, 30 So.2d 53 (1947).
34. 244 Miss. at 107, 140 So.2d at 842.
35. 399 F.2d 485. "Beginning in 1953, and continuing at least until 1963, there were incidents in which members of the general public were forcibly denied the use and enjoyment of the beach, . . ." *Id.* at 490. The lower federal court decision indicates that the suit was brought by the United States because peace officers had allegedly discriminated against blacks in the use of the beach. *United States* v. *Harrison County*, 265 F.Supp. 76 (S.D. Miss. 1967).
36. 265 F.Supp. 76.
37. 399 F.2d 485.
38. *Id.* at 489-492.
39. 244 Miss. 95, 140 So.2d 838.
40. 399 F.2d at 491. The cited constitutional provision reads: "Lands belonging to, or under the control of the state, shall never be donated directly or indirectly to private corporations or individuals."
41. 399 F.2d at 491.
42. *Ibid.*
43. *H.K. Porter Co., Inc.* v. *Bd. of Supervisors of Jackson County*, 324 So.2d 746, 750 (Miss. 1975). The court reasoned that the island had arisen out of the state-owned bed of the bayou and the state therefore owned the island and was entitled to accretions to the island even though they ultimately reached the private littoral lands.
44. See, *e.g.*, *Parks* v. *Simpson*, 242 Mass. 894, 137 So.2d 136 (1962); *Giles* v. *City of Biloxi*, *supra*, 237 Miss, 65, 112 So.2d 815; *Xidis* v. *City of Gulfport*, 221 Miss. 79, 72 So.2d 153 (1954); *Crary* v. *State Hwy. Com'n*, 219 Miss. 284, 68 So.2d 468 (1953); *Money* v. *Wood*, *supra*, 152 Miss. 17, 118 So. 357.
45. 199 So.2d 627.
46. *Id.* at 634.
47. *Id.* at 633.
48. *Id.* at 634.
49. *Int'l Paper Co.* v. *Miss. State Hwy. Dep't*, 271 So.2d 395 (Miss. 1972), *cert. denied*, 414 U.S. 827 (1973).
50. "While it is true that the character of the land . . . has changed by accretion from the time it vested in the State until the time of the [1884] legislative enactment and that perhaps its paramount use for navigational purposes has diminished, nevertheless it is our opinion that these changing characteristics of the land did not displace the trust imposed upon the State for the public." *Id.* at 399.
51. Comment, *The Mississippi Public Trust Doctrine: Public and Private Rights in the Coastal Zone*, 46 Miss. L.J. 84, 98-100, 111-114 (1975); Recent Decisions, *supra*, 44 Miss. L.J. 322, 327.
52. Miss. Code Ann. § 49-15-5.
53. 414 F.2d 784. For a brief discussion of this case and the factual context within which it was decided, see "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.
54. 199 So.2d 627. The court subsequently attempted to limit the *Treuting* case: "We observe that this case is an exception to the general rule which prohibits the sale by a trustee to anyone for a private purpose. The case was restricted in its terms to the circumstances there existing which arose from special legislation directed to a particular area." *Int'l Paper Co.* v. *Miss. State Hwy. Dep't*, *supra*, 271 So.2d at 399.
55. MCP, *supra* note 3, at VI-9.
56. *Id.* at VI-10.
57. *Harrison County* v. *Guice*, *supra*, 244 Miss. 95, 142 So.2d 838, discussed under "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.
58. *United States* v. *Harrison County*, *supra*, 414 F.2d 784, discussed in same portion of article.
59. 244 Miss. at 107, 140 So.2d at 842.
60. *Treuting* v. *Bridge & Park Com'n of City of Biloxi*, *supra*, 199 So.2d 627.
61. *Id.* at 633. The cited case is *Hayes* v. *Bowman*, 91 So.2d 795, 799 (Fla. 1957).
62. *Xidis* v. *City of Gulfport*, *supra*, 72 So.2d 153, 155.
63. Miss. Code Ann. § 49-15-9.
64. *Id.* §§ 29-7-1, 29-7-3, 49-2-5, 49-2-7, 49-2-9 (Supp. 1984). A statute authorizes the state to lease tide and submerged lands to county port authorities "for the development of commercial fishing, port and related industrial facilities," but expressly reserves to the state the minerals in, on or under such lands. *Id.* § 59-9-21 (Supp. 1984).
65. *Id.* § 49-27-1 *et seq.* (Supp. 1984).
66. *Id.* § 49-27-3 (Supp. 1984).
67. *Id.* §§ 49-27-5(c), 49-27-9 (Supp. 1984). Certain private parties and governmental agencies are exempt from the regulatory provisions. For example, subject to provisos, there is an exemption for "[t]he exercise of riparian rights by the owner of the riparian rights." *Id.* § 49-27-7 (Supp. 1984).
68. MCP, *supra* note 3, at II-2.
69. *Id.* at V-2-3.

The Law of the Coast in a Clamshell*

Part XXII: The Georgia Approach

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REMOVING UNCERTAINTY engendered by a 1902 statute, the Georgia Supreme Court ruled 10 years ago that the state, instead of private landowners, has title to the sandy beaches along its barrier islands.[1]

But another perplexing legal question concerning Georgia's coastal zone still remains unresolved: ownership of the vast marshlands between the islands and the mainland.[2]

Unlike most coastal states, Georgia is not participating in the federal Coastal Zone Management Act[3] program. However, it has enacted tough regulatory measures for both the barrier islands and the marshlands.[4]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Georgia's coastal zone includes parts of six counties, and extends into the Atlantic Ocean to the state's seaward jurisdictional limit.[5]

Lands within the zone may be legally divided into uplands, tidelands and submerged lands.[6] A problem of classification exists, however, with regard to coastal marshlands; although they may be classified as uplands, some legal writers in Georgia do not distinguish between marshlands and tidelands.[7]

A. Uplands

Private parties own the majority of uplands in the mainland portion of the coastal zone, but the Federal Government and the state administer numerous recreational areas and wildlife refuges on the barrier islands.[8] To the extent that marshlands may be classified as uplands, considerable uncertainty still exists as to whether they are owned by the state or private parties.[9]

B. Tidelands

Georgia, one of the original states, succeeded the English crown as the the owner of all previously ungranted tidelands.[10] But, until the 1976 state Supreme Court decision in *State* v. *Ashmore*,[11] it was uncertain whether the state had relinquished its title to tidelands by virtue of a 1902 statute,[12] which had apparently been ratified by the 1945 state Constitution.[13]

The law had been enacted immediately following *Johnson* v. *State*,[14] which reiterated Georgia's adherence to the common law and state ownership of the tidelands. In that case, the court dismissed an indictment for the misdemeanor of gathering oysters from an alleged private oyster bed. "The *Johnson* decision, by holding that the oysters were on state land [that was] therefore open to the public, apparently discouraged private oyster planting,"[15] which the state had been seeking to encourage.

Presumably in response to the concern of the oyster industry over the *Johnson* case, the legislature in 1902 passed an act entitled "Boundaries of Lands on Tide-Waters."[16] In its original form, Section 3 of the law provided:

> "... [F]or all purposes, including among others the exclusive right to the oysters and clams (but not to include other fish) therein or thereon being, the boundaries and right of owners of land adjacent to or covered in whole or in part by navigable tidewaters ... shall extend to low water mark ... [subject to certain provisos]."[17]

Because of the doubtful constitutionality of this 1902 statute, a constitutional amendment was submitted to and approved by the voters in 1945 which apparently ratified and confirmed the act.[18]

Although the statute had "put the ownership of the foreshore in question,"[19] it "was often interpreted to grant portions of the foreshore to owners of land adja-

* This is the twenty-second in a series of articles presenting a capsule verison of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Georgia concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1986 by Peter H. F. Graber. The author also asserts copyright protection for the first 21 articles in this series.

cent to or covered in whole or part by tidewater."[20]

In 1976, in *State* v. *Ashmore*,[21] a divided Georgia Supreme Court upheld the 1902 act's constitutionality but ruled that Section 3, quoted above, did not convey the state's title to lands beneath navigable tidal waters. The court, in a 5-2 decision, held:

> "... [N]othing but the right to plant, cultivate and harvest oysters and clams was granted. Such a grant solved the problem of the oystermen. They had the exclusive right to the oysters in the tidal waters next to their adjacent land...."[22]

The *Ashmore* decision concluded that "the state has fee simple title to the foreshore in all navigable tidewaters,"[23] such as the sandy beaches on barrier islands. The court did not rule on the effect of the 1902 act on the rights of owners of property adjoining non-navigable tidal waters.[24]

Since the *Ashmore* case arose in the context of a dispute over an ocean beach on a barrier island, it did not deal with the question of marshland title. As one legal writer put it, "the issue now left to be decided is whether marshlands are 'navigable' or 'non-navigable' tidewaters."[25] Georgia's appellate courts have yet to decide that question or to rule that all or some of the marshes may be legally classified as uplands instead of tidelands.

C. Submerged Lands

Georgia has dominion and control of submerged lands within 3 geographical miles of its coast under the Submerged Lands Act of 1952.[26] In 1975 the U.S. Supreme Court rejected the claims of Georgia and other East Coast states to the area beyond that limit.[27]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Until the 1976 *Ashmore* decision,[28] some legal authorities believed that Georgia was among the minority of coastal states in which the low-water line divides private littoral property from publicly owned lands beneath tidal waters.[29] That decision, however, clearly reestablished the rule that in Georgia the high-water mark demarcates the waterward boundary of private property adjacent to navigable tidal waters.[30]

In 1981 the state Supreme Court adopted the federal rule defining "mean high water ... [as] the elevation of the mean level of high water calculated by averaging the height of *all* the high waters at that place over a period of 19 years."[31] The court stated that the mean high-water mark is "determined by projecting the tidal [datum] plane of the mean high water to the point of intersection with the shore."[32]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Private littoral owners, in general, benefit by gradual, imperceptible accretions to their property.[33] In one case, beachfront landowners were held to be entitled to accretions that had formed as a result of artificial influences before a developer sold the lots to their predecessors.[34] Conversely, landowners may suffer loss of property by gradual erosion.[35]

GEORGIA'S PUBLIC TRUST DOCTRINE

The Georgia Supreme Court has not expressly addressed the nature and extent of the public trust doctrine, although several of its decisions refer to public rights in tidal waters and the state attorney general issued a position paper in 1970 asserting that marshlands, whether publicly or privately owned, are subject to the trust.[36]

A legal writer states that the Georgia courts have implicitly acknowledged the public trust and argues that they should explicitly adopt the doctrine.[37] He notes that a 1971 Court of Appeals decision[38] "reaffirmed the public 'right of common fishery in all tidal waters, whether actually navigable or non-navigable,'" and asserts that three cases[39] "at least implied the existence of a protected right of recreation in the tidelands."[40]

The previously discussed 1902 act,[41] which was interpreted in *State* v. *Ashmore*,[42] expressly recognized certain public rights in tidelands. As presently codified, the statute reserves the public's "free use" of both navigable and non-navigable tidewaters "for the purposes of passage and for the transportation of ... freight...."[43]

PUBLIC ACCESS RIGHTS

Unlike courts in California,[44] New Jersey[45] and Oregon,[46] the Georgia appellate tribunals have not been eager to invoke such legal concepts as implied dedication, the public trust and custom as a means to assure public access to tidal waters.

In a 1978 case, the Georgia Supreme Court rejected the state's claim that the public had acquired rights to a beach area on St. Simon's Island under the theory of custom.[47] Two years later, in another decision, the court held there was insufficient evidence to show implied dedication to the public of accreted lands.[48] The court pointed out, however, that "the streets of the subdivision that are perpendicular to the foreshore [tidelands] were also extended by accretion and thus they reach the foreshore furnishing access across the disputed area."[49]

A 1981 case created some uncertainty about the question of public access because of an ambiguous statement that could be interpreted as indicating that access

must be provided across a privately owned "soft beach" area to the state's tidelands.[50] But, as a subsequent decision demonstrated, this interpretation was not justified because appellant's claim was based on his status as a property owner in a development on Sea Island and the court was not required to decide the broader issue of general public access across private lands.

In 1985 the court refused to "decide the exact nature of the general public's right of access to the foreshore on Sea Island" in another suit by a landowner against a developer.[51] The court declined to issue an advisory opinion after ruling that there was no legal controversy to be decided because the developer had not denied the owner access to either the "soft sand beach" or the foreshore and because "no member of the general public who may have been denied access was made a party to the action."[52]

PRIVATE LITTORAL RIGHTS

As mentioned above, private upland owners are entitled to accretions to their property.[53] The landowners also enjoy the exclusive right to plant, cultivate and harvest clams and oysters in the adjoining navigable tidal waters.[54]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The State Properties Commission is empowered to issue leases for exploration for and removal of "mineral resources," including oil, gas, sand, sulfur and phosphate, in the state's tide-flowed lands.[55] Leasing of oyster and clam beds is within the jurisdiction of the Department of Natural Resources.[56]

B. Regulatory Functions

Since 1970, coastal marshlands have been regulated under the Georgia Coastal Marshlands Protection Act.[57] Under this act, "[n]o person shall remove, fill, dredge or drain or otherwise alter any marshlands in this State within the estuarine area thereof without first obtaining a permit" from the Coastal Marshlands Protection Committee.[58]

"Coastal marshlands" are defined in the act as including "any marshland or salt marsh in the State of Georgia within the estuarine area of the state, whether or not the tidewaters reach the littoral areas through natural or artificial water courses."[59] The law defines the "estuarine area" as "[a]ll tidally influenced waters, marshes, and marshlands lying within a tide-elevation range from 5.6 feet above mean tide level and below."[60]

Another extensive regulatory program was established by the Shore Assistance Act of 1979.[61] This law is intended to reduce erosion along Georgia's barrier islands by requiring a permit for "any structure, ... shoreline engineering activity or ... land alteration" within the regulated zone.[62] The act defines "shoreline engineering activity" as including grading, artificial dune construction, beach nourishment, and the construction and maintenance of groins, seawalls and jetties.[63]

In passing the Shore Assistance Act, legislators recognized the significance of the "sand-sharing system" of sand dunes, beaches, sandbars and shoals.[64] This law's program is administered by the Shore Assistance Committee within the Department of Natural Resources.[65] The zone subject to regulation embraces the "submerged shoreline lands" and the "dynamic dune fields" on the barrier islands.[66]

Although Georgia's Coastal Management Act of 1978[67] was enacted in part to enable the state to seek financial assistance under the federal Coastal Zone Management Act of 1972, as amended,[68] the state is not participating in the federal CZMA program. It is the only Atlantic Coast state not doing so.

ACKNOWLEDGMENTS

The author is grateful to Patricia T. Barmeyer, senior assistant attorney general, and Duane Harris, director, Coastal Resources Division, Department of Natural Resources, State of Georgia, for providing some of the source material cited in this article.

REFERENCES

1. *State* v. *Ashmore*, 236 Ga. 401, 224 S.E.2d 334 (1976), *cert. denied*, 429 U.S. 830 (1976). In this case, which involved St. Simons Island, the court held that the state has title to the foreshore—the lands between the lines of high and low water—of all *navigable* tidewaters, despite a 1902 statute that was ratified by the 1945 state Constitution. For discussions of the case, see "Tidelands" under "Title to Lands Within the Coastal Zone" and "Determination of Tidal Boundaries," *infra*.

   The precise geographic extent to which the *Ashmore* decision applies is not known. According to one legal writer, Georgia has a total of 893 miles of tidal shoreline, 727 miles of which is around islands and 166 miles on the mainland. Ireland, *Marginal Seas Around the States*, 2 La. L.Rev. 436, 441 (1940). However, another legal author states that Georgia has 2,344 miles of tidal shoreline. Note, *The Georgia Foreshore and State v. Ashmore: The Legislature Giveth and the Judiciary Taketh Away*, 7 Env. L. 154 n. 1 (1976).

2. The *Ashmore* case, *supra*, specifically did not decide ownership of the foreshore of *non-navigable* tidewaters. "Private ownership and use of most marshlands went unquestioned until the 1970 General Assembly [legislature] ... passed the Coastal Marshlands Protection Act.... Shortly [thereafter] the [state] Attorney General issued a position paper.... This opinion held that almost all of Georgia's marshes were owned by the State." Abbott, *Some Legal Problems Involved in Saving Georgia's Marshlands*, 7 Ga.St.B.J. 27, 29 (1970). As of this writing, there is no post-*Ashmore* appellate court decision dealing with marshland title.

3. Under the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq.*, the states were encouraged to develop and seek Federal Government approval of coastal zone management programs.
4. For a brief discussion of the regulatory programs, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra.*
5. Ga. Code Ann. §43-2602 (Supp. 1985; repealed 1984). The landward boundary of the zone is described by reference to two major transportation corridors, the Seaboard Coast Line Railroad and Interstate Highway 95. *Ibid.*
6. This classification is used for convenience and consistency with other articles in this series. However, the word *foreshore* has been used in Georgia cases to mean the lands referred to in this series as *tidelands*, *i.e.*, lands between the lines of high and low water. See, *e.g.*, *State* v. *Ashmore*, *supra*, 236 Ga. 401, 224 S.E.2d 334.
7. See, *e.g.*, Smith & Sammons, *Public Rights in Georgia's Tidelands*, 9 Ga.L.Rev. 79, 80 n.1 (1974).
8. Among such units are the Cumberland Island National Seashore, Jekyll Island and Skidaway Island State Parks, and Wassaw and Blackbeard Island National Wildlife Refuges.
9. In a 1970 position paper, 1970 Op. Ga. Att'y Gen. 279, Georgia's attorney general concedes that some areas of marshland were granted into private ownership either by the king of England or the state. The position paper asserts, however, that most crown grants are "bounded by the marshes," and do not include the marsh, citing *Oemler* v. *Green*, 134 Ga. 198 (1910). The state Supreme Court has not ruled on the merits of the attorney general's assertion in any decision since the 1976 *Ashmore* case, *supra.*
10. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842).
11. 236 Ga. 401, 224 S.E.2d 334.
12. Ga. Laws 1902, p. 108; codified at Ga. Code Ann. §§ 85-1307, 85-1308 (Supp. 1985).
13. Ga. Const. art I, § VI, para. 1 (1945).
14. 114 Ga. 790, 40 S.E. 807 (1902).
15. Note, *A Tidelands Trust for Georgia*, 17 Ga. L.Rev. 851, 859 (1983).
16. Ga. Laws 1902, p. 108; codified at Ga. Code Ann. §§ 85-1307, 85-1308 (Supp. 1985).
17. Ga. Laws 1902, p. 108, § 3.
18. Ga. Const. art. I, § VI, para. I (1945).
19. Note, *supra* note 15, 17 Ga. L.Rev. at 859.
20. Smith & Sammons, *supra* note 7, 9 Ga. L.Rev. at 101.
21. 236 Ga. 401, 224 S.E.2d 334. For a more detailed discussion of the case, see Note, *supra* note 15, 17 Ga. L.Rev. 851; Note, *supra* note 1, 7 Env. L. 154; Note, *Real Property—State Has Title to Foreshores of Georgia's Navigable Waters*, 27 Mercer L.Rev. 1229 (1976).
22. 236 Ga. at 413, 224 S.E.2d at 341.
23. *Ibid.*
24. A section of the 1902 act not involved in *Ashmore* provided that "the title to the beds of all tide-waters ... which are not navigable ... shall vest in the present owner of the adjacent land for all purposes...." Ga. Laws 1902, p. 108, § 1.
25. Note, *supra* note 21, 27 Mercer L.Rev. at 1234.
26. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
27. *United States* v. *Maine*, 420 U.S. 515, 517-518, 528 (1975).
28. 236 Ga. 401, 224 S.E.2d 334.
29. See, *e.g.*, Maloney & Ausness, *The Use and Legal Significance of the Mean High Water Line in Coastal Boundary Mapping*, 53 N.C.L. Rev. 185, 201 (1974).
30. This had been the rule before enactment of the 1902 statute. *Johnson* v. *State*, *supra*, 114 Ga. 790, 40 S.E. 807. The state Supreme Court in *State* v. *Ashmore*, *supra*, 236 Ga. 401, 224 S.E.2d 334, did not rule on the section of the act relating to landowners adjacent to *non-navigable* tidal waters.
31. *Smith* v. *State*, 248 Ga. 154, 157, 282 S.E.2d 76, 81 (1981) (emphasis by court). This decision thus follows the U.S. Supreme Court's holding in *Borax, Ltd.* v. *City of Los Angeles*, 296 U.S. 10, 26-27 (1935). For a brief discussion of *Borax*, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18.
32. 248 Ga. at 157, 282 S.E.2d at 81.
33. *State* v. *Ashmore*, *supra*, 236 Ga. at 414, 224 S.E.2d at 342. The court said, however, that, depending on the evidence in a given case, such accreted land could be dedicated to public use or be subject to prescriptive rights. *Ibid.* In a subsequent appeal of this case, the court ruled that there was not sufficient evidence of dedication or prescription. *Lines* v. *State*, 245 Ga. 390, 264 S.E.2d 891 (1980).
34. *Cherry* v. *Hopkins*, 254 Ga. 260, 328 S.E.2d 702 (1985). The dynamiting and damming of a tidal creek through the property caused the beach to build up, according to the court's decision.
35. *Smith* v. *Bruce*, 241 Ga. 133, 244 S.E.2d 559 (1978). In this case, the court lumped together the legal effect of the *gradual* process of erosion and the *sudden, perceptible* changes known as avulsion. This is inconsistent with the law elsewhere. In most jurisdictions, legal boundaries shift with erosion but do not move when the changes are avulsive. See "Shoreline Changes: A Legal Lexicon," *Shore and Beach*, Vol. 50, No. 2, July 1982, p. 18.
36. For a brief discussion of the public trust doctrine, which has its roots in ancient Roman law and evolved at English common law, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19. The attorney general's position is set forth in 1970 Op. Ga. Att'y Gen. 279.
37. Note, *supra* note 15, 17 Ga. L.Rev. at 884. See also Smith & Sammons, *supra* note 7, 9 Ga. L.Rev. 79. In *Johnson* v. *State*, *supra*, 114 Ga. 790, 791-792, 40 S.E. 807-808, the Georgia Supreme Court declared that the state adheres to the common law, which presumably would include the public trust doctrine.
38. *West* v. *Baumgartner*, 124 Ga. App. 318, 325, 184 S.E.2d 213, 219 (1971), *rev'd on other grounds*, 228 Ga. 671, 187 S.E.2d 665 (1972). The case arose from the prosecution of the plaintiff for fishing from a boat in a slough on a privately owned island without having obtained permission. After he was acquitted, he brought suit for malicious prosecution.
39. *Goodyear* v. *Trust Co. Bank*, 247 Ga. 281, 276 S.E.2d 30 (1981); *Lines* v. *State*, *supra*, 245 Ga. 390, 264 S.E.2d 891; *Smith* v. *Bruce*, *supra*, 241 Ga. 133, 244 S.E.2d 559.
40. Note, *supra* note 15, 17 Ga. L.Rev. at 867, 870.
41. Ga. Laws 1902, p. 108; codified at Ga. Code Ann. §§ 85-1307, 85-1308 (Supp. 1985).
42. 236 Ga. 401, 224 S.E.2d 334.
43. Ga. Code Ann. § 85-1308(b) (Supp. 1985).
44. For a brief discussion of the California Supreme Court's application of the theory of *implied dedication* in *Gion* v. *City of Santa Cruz* and *Dietz* v. *King*, 2 Cal.3d 29, 465 84 Cal. Rptr. 162 (1970), see *Shore and Beach*, Vol. 49, No. 2, April 1981, p. 23.
45. For a brief discussion of the New Jersey Supreme Court's cases concerning the *public trust doctrine* in *Van Ness* v. *Borough of Deal*, 78 N.J. 174, 393 A.2d 571 (1978), and *Borough of Neptune City* v. *Borough of Avon-by-the Sea*, 61 N.J. 296, 294 A.2d 47 (1972), see *Shore and Beach*, Vol. 50, No. 2, April 1983, p. 11.
46. For a brief discussion of the Oregon Supreme Court's utilization of the doctrine of *custom* in *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P.2d 671 (1969), see *Shore and Beach*, Vol. 50, No. 2, July 1982, pp. 16-17, 19-20.
47. *Smith* v. *Bruce*, *supra*, 241 Ga. at 146, 244 S.E.2d at 569. The court, conceding that there may have been an express offer to dedicate a beach area by the original owner of the beach, remanded the case to the trial court for a determination of whether there had been acceptance by the public of such an offer.

48. *Lines* v. *State*, *supra*, 245 Ga. at 394, 264 S.E.2d at 896. The court said: "It would be inequitable to impose a public easement on a beach owner's property because he tolerated liberties from the public which did not interfere with his private enjoyment.... Trespassing on lands adjacent to a public beach is so frequently engaged in by persons claiming no title or interest in the land itself, it is of little evidentiary value in proving possession, and standing alone is totally insufficient in our opinion." *Id.* at 395, 264 S.E.2d at 896.
49. *Id.* at 397, 264 S.E.2d at 897. The court added: "The foreshore itself belongs to the State and is available to all, with access thereto not diminished." *Id.* at 397, 264 S.E.2d at 898.
50. In *Goodyear* v. *Trust Co. Bank*, *supra*, 247 Ga. 281, 285, 276 S.E.2d 30, 34, the court stated: "While the developer of Sea Island must have allowed an easement for ingress and egress to the ocean itself, and *while access must now be allowed to the foreshore found to belong to the State* ..., the ... plats do not indicate any intent on the part of the developer to create a recreational easement." (Emphasis added.)
51. *Rolleston* v. *Sea Island Properties, Inc.*, 254 Ga. 183, 327 S.E.2d 489, 491 (1985).
52. *Ibid.*
53. *Cherry* v. *Hopkins*, *supra*, 254 Ga. 260, 328 S.E.2d 702; *State* v. *Ashmore*, *supra*, 236 Ga. 401, 224 S.E.2d 334.
54. The constitutionality of a 1902 statute, Ga. Laws 1902, p. 108, granting this right was upheld in *State* v. *Ashmore*, *supra*, 236 Ga. 401, 224 S.E.2d 334.
55. Ga. Code Ann. §§ 91-102a, 91-110a (Supp. 1985).
56. *Id.* § 49-920 (Supp. 1985). As previously mentioned, however, private upland owners have the exclusive right to plant, cultivate and harvest clams and oysters in navigable tidal waters adjoining their land. See "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
57. Ga. Code Ann. § 43-204 *et seq.* (Supp. 1985). For discussions of the statute, see Note, *Regulation and Ownership of the Marshlands: The Georgia Marshlands Act*, 5 Ga. L.Rev. 563 (1971); *Georgia's Environmental Law: A Survey*, 23 Mercer L.Rev. 633, 649 (1971).
58. Ga. Code Ann. § 43-2405(a) (Supp. 1985). The committee consists of the commissioner of natural resources and two persons selected by the Board of Natural Resources. *Id.* § 43-2403(a) (Supp. 1985). There are various exceptions to the permit requirements. For example, upland owners need not obtain permits to build "private docks on pilings, the walkways of which are above the marsh grass not obstructing tidal flow." *Id.* § 43-2412(6) (Supp. 1985).
59. *Id.* § 43-2402(2) (Supp. 1985).
60. *Id.* § 43-2402(4) (Supp. 1985).
61. *Id.* § 43-3001 *et seq.* (Supp. 1985).
62. *Id.* § 43-3005(a) (Supp. 1985).
63. *Id.* § 43-3003(17) (Supp. 1985).
64. *Id.* § 43-3002 (Supp. 1985).
65. *Id.* § 43-3009. The committee consists of the commissioner of natural resources and two persons selected by the Board of Natural Resources.
66. *Id.* § 43-3004 (Supp. 1985). The latter term is defined as meaning: "... the dynamic ocean-facing area of beach and sand dunes, varying in height and width, the ocean boundary of which extends to the ordinary high-water mark and the landward boundary of which is the first occurrence either of live native trees 20 feet in height or greater, of coastal marshlands ... or of an existing structure." *Id.* § 43-3003(8).

    When a property owner asserted that the location of the tree line referred to in the act as the western boundary of its jurisdiction was so vague as to render the statute unconstitutional, the Georgia Supreme Court ruled against him. The court said that the act "is clear and unambiguous" and that the method used by the Department of Natural Resources in establishing its jurisdiction—the measuring and mapping of trees—was "rationally related" to the purpose of the statute: protection of "a vital, but unstable, natural resource." *Rolleston* v. *State*, 245 Ga. 576, 266 S.E.2d 189 (1980).
67. Ga. Code Ann. § 43-2601 *et seq.* (Supp. 1985; repealed 1984).
68. 16 U.S.C. § 1451 *st seq.*

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The Law of the Coast in a Clamshell*

Part XXIII: The New Hampshire Approach

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ILLEGAL SURFRIDING and the Seabrook nuclear power plant: These disparate coastal activities, both subject to governmental regulation, exemplify the broad range of contemporary legal disputes along New Hampshire's short shoreline.

Surprisingly, the Town of Rye's criminal case against two wayward surfers went all the way to the state Supreme Court. In 1968 the court upheld their conviction for violating a local ordinance limiting surfing to specified times at a designated beach.[1] Their offense: Being "sighted upon surfboards in the Atlantic Ocean off Rye, ... at approximately 5:55 [on a July afternoon] ... 100 to 300 yards from the shoreline," adjacent to an apparently private beach and some 600 yards north of the official "public surfing area."[2] Their penalties, upheld by the high court: $10 fines.[3]

Not surprisingly, the Seabrook nuclear power plant has generated high-voltage controversies and litigation, especially since the Soviet Union's Chernobyl disaster.[4] In 1986, as New Hampshire's trees staged their annual autumnal show of color, the governor of neighboring Massachusetts protested the Federal Government's decision allowing the owners of the Seabrook power plant to load nuclear fuel and to test the reactor,[5] and a longtime foe of the plant filed suit alleging "delays and improprieties in establishing a fund" to clean up or decommission the plant once its contemplated 30-year "commercial life" is over – assuming *that* life is not aborted before any power is produced at Seabrook.[6]

Surfing and the nuclear power plant are only two of the host of activities subject to federal, state and local regulation within the Granite State's coastal zone. In 1982 New Hampshire became one of the last coastal states to gain United States approval for its coastal management program, which is based on a coordinated series of existing state laws.[7] Although the state has only 18 miles of Atlantic Ocean seacoast, New Hampshire proudly boasts that it "has more public access [to the ocean] per mile of its Atlantic shoreline than perhaps any other coastal state in the nation."[8]

TITLE TO LANDS WITHIN THE COASTAL ZONE

The ocean and harbor segment of the New Hampshire coastal zone, the first phase of the state's coastal program, embraces all coastal waters to the seaward limit of state jurisdiction and all lands along the Atlantic Ocean shoreline from the Portsmouth/Newington town line on the north to Seabrook on the south. The zone extends landward 1,000 feet or to the limit of the state Wetlands Board's jurisdiction over tidal waters, whichever is farther inland.[9]

These coastal zone lands may be divided into uplands, tidelands and submerged lands.[10]

A. Uplands

Although New Hampshire has only 18 miles of Atlantic shoreline, 78 percent of the littoral lands along the coast is publicly owned.[11] Governmental entities own or manage more than 60 percent of the property within 1,000 feet of the Atlantic shoreline.[12] In addition, the coastal zone includes 113 miles of shoreline in Portsmouth Harbor, along the Piscataqua River, and adjacent to other tidal rivers and estuaries.[13]

B. Tidelands

As one of the original states, New Hampshire was vested with title to all previously ungranted tidelands within its borders in 1776.[14] During part of the colonial era, the area now within the state was, like present-day Maine and Massachusetts, within the jurisdiction of

* This is the twenty-third in a series of articles presenting a capsule verison of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of statutory and case law of the State of New Hampshire concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1987 by Peter H. F. Graber. The author also asserts copyright protection for the first 22 articles in this series.

the Massachusetts Bay Colony.[15] Consequently, under that colony's ordinance of 1647,[16] some New Hampshire tidelands were granted into private ownership, subject to reserved public rights.[17]

Because most uplands along the Atlantic coast are publicly owned,[18] the state retains sovereign title to the adjoining tidelands as successor to the English crown.

C. Submerged Lands

Under the Submerged Lands Act of 1953,[19] New Hampshire has title to submerged lands within a 3-geographical-mile belt along its Atlantic coast. The state's claim to the area between the 3-mile limit and the extent of the United States' jurisdiction was rejected in 1975 by the U.S. Supreme Court.[20]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

As a result of the colonial ordinance of 1647,[21] New Hampshire is generally considered to be among the minority of states in which the low-water mark, not the high-water line, is the legal boundary between public and private coastal lands.[22] Indeed, an 1845 state Supreme Court decision, *Nudd* v. *Hobbs*,[23] suggests that the low-water mark constitutes the legal boundary. But that case involved only pretrial pleading issues, and the court's statements on the boundary question appear to have been *dicta*, that is, unnecessary to the decision.[24]

At a 1979 environmental law seminar, within the context of a discussion about legislation to regulate wetlands, a speaker opined that under New Hampshire's common law, the public's title to what he imprecisely called "submerged land"[25] extends to "the mean high tide line."[26] He said "[t]hat line is the line of the *average* high tide and *not* the *extreme* high tide."[27] It is questionable whether the speaker correctly stated New Hampshire's coastal boundary law for *title* purposes, but for *regulatory* purposes, state law concerning filling and dredging in wetlands does refer to the "local mean high tide."[28]

B. Tideland/Submerged Land Boundary

Where the colonial ordinance of 1647 is applicable, private titles may extend seaward to the low-water mark, providing that line is not more than 100 rods – or 1,650 feet – seaward of the high-water line.[29] While the 1845 *Nudd* decision[30] may be dubious authority on this point, the state's high court, in *Clement* v. *Burns*, wrote as follows in 1862:

> "*In Massachusetts and Maine* it is now an established rule of property that the riparian owner extends to low water mark, if not over one hundred rods, subject only to the public right of navigation. It is not the result of positive law, but of *long continued usage*, which *has become the common law of those States*. The origin of this usage has been traced to an ordinance of the Colony of Massachusetts, passed in 1641 [as amended by the ordinance of 1647], by which the ownership of uplands upon navigable waters was extended to low water mark, if not over one hundred rods.... [T]he usage continued, and became so universal as to ripen into a settled rule, in the construction of such grants, not only in the Colony of Massachusetts, but in that of Plymouth, as well as the District of Maine....
>
> "...
>
> "As a rule of positive law, *the ordinance of 1641 was not binding upon New-Hampshire; but when we consider that a union was effected in that same year between New-Hampshire*, or so much of it as was then settled, *and Massachusetts, which was continued for about forty years, making them practically one government, we should naturally expect that the same usages would spring up here under that ordinance*, especially as such was actually the case as to one shore of the Piscataqua river, which then, as now, afforded the principal part of the navigable waters of this State...."[31]

C. Legal Effect of Physical Changes in the Location of the Shoreline

New Hampshire presumably follows the usual common-law rule that the seaward property boundaries of lands adjoining tidal waters move with those gradual, imperceptible changes called accretion and erosion.[32]

The state's coastal program document asserts that "[s]ignificant beach erosion occurs in only a few areas along New Hampshire's coast, and these beaches are periodically renourished in conjunction with the Hampton Harbor channel maintenance dredging projects."[33]

NEW HAMPSHIRE'S PUBLIC TRUST DOCTRINE

The public trust doctrine, which protects the public's rights of navigation and fishing in navigable waters,[34] is well established in New Hampshire. *Concord Manufacturing Co.* v. *Robertson*,[35] an 1889 decision, declares that the public has the rights of flotation or navigation, hunting and fishing.[36]

Both the English common law and the Massachusetts Bay Colony's ordinance of 1641[37] are sources of public rights in the state's coastal waters.

In the *Concord* decision,[38] the New Hampshire Supreme Court quoted the colonial ordinance of 1641 as follows:

> "Every inhabitant that is an howseholder shall have free fishing and fowling in any great ponds, and bayes, coves, and rivers so farre as the sea ebbes and flowes within the presincts of the towne where they dwell, unless the free men of the same towne where they dwell or the generall court have otherwise appropriated them, provided that this shall not be extended to give leave to any man to come upon others proprietie without there leave. [Citations]."[39]

The court then declared:

> "In this state, free fishing and free fowling in great ponds [10 acres or larger in area] and tidewaters have not needed the aid of a statute for the abolition of written or the declaration of unwritten law. So far as the ordinance of 1641 introduced or confirmed these liberties, it was an enactment of New Hampshire's common law...."[40]

More recently, in a 1935 case involving a great pond, the New Hampshire Supreme Court stated that private littoral owners' prescriptive rights to maintain the water level at an artificial elevation cannot defeat the public's rights of boating, bathing, fishing, fowling, skating, and cutting and taking ice from the state's public waters.[41]

PUBLIC ACCESS RIGHTS

From a practical point of view, public access to the Atlantic Ocean's sandy beaches is assured in New Hampshire because almost all of the beaches are publicly owned or managed.[42] As noted at the outset, the state's coastal program document asserts that "New Hampshire has more public access per mile of its Atlantic shoreline than perhaps any other coastal state in the nation."[43]

Conceptually, it may be argued that the state's public access rights are rooted in the ancient English common-law doctrine of custom. Legally, a custom is "such a usage as by common consent and uniform practice has become the law of the place, or of the subject matter to which it relates."[44]

As early as 1845, in *Nudd* v. *Hobbs*,[45] the New Hampshire high court discussed custom as a possible basis for the public's rights along the coast, although finding this doctrine inappropriate under the facts of that case. In *Knowles* v. *Dow*,[46] an 1851 case, the court held that there had been sufficient evidence to prove a local custom of the inhabitants of Hampton "to deposit upon the beach or sand-hills of the plaintiffs the sea-weed gathered between high and low-water mark."[47]

An 1834 New Hampshire decision is the only American case cited by the Oregon Supreme Court in its landmark 1969 opinion in *State ex rel. Thornton* v. *Hay*[48] for the proposition that the doctrine of custom may be applied to assure public access to Oregon's beaches.

Ironically, in the cited case, *Perley* v. *Langley*,[49] the New Hampshire court – while discussing the legal terms *custom*, *prescription* and *profit a prendre* – held that the village's inhabitants could *not* claim, as a custom, the right to take sand from the navigable water of Sandbornton Bay to mix with lime for the purpose of making mortar. The Oregon court in *Thornton* would have been on sounder legal ground if it had cited the *Knowles* decision rather than *Perley*.[50]

PRIVATE LITTORAL RIGHTS

As previously noted, some private upland property owners, who can trace the source of their titles to grants made under the Massachusetts Bay Colony's ordinance of 1647, appear to have title to and rights in the contiguous tidelands, or foreshore.[51]

Aside from such rights, upland owners generally enjoy other rights because of the English and/or New Hampshire common law. In addition to the usual right to accretions to their upland parcels,[52] private littoral landowners are entitled to wharf out into adjacent navigable waters.[53]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

Sand and gravel from the beds of navigable waters, including tide and submerged lands, may be extracted with state permission pursuant to a New Hampshire statute.[54] Another law provides for issuance of "rules and regulations for the purpose of protecting ... mining and mineral rights and oil and gas rights of the state."[55]

B. Regulatory Functions

Many types of activities within New Hampshire's coastal zone – ranging from nuclear power plants to filling marshlands, and from surfriding to erection of shoreline protective devices – are regulated by a plethora of federal, state and local governmental agencies, some of which assert overlapping jurisdictions.

In the aftermath of the disastrous explosion at Chernobyl in the Soviet Union during the spring of 1986, opposition has increased to the controversial Seabrook nuclear power plant along New Hampshire's Atlantic coast near the state's southern border with Massachusetts. One of the tough legal questions raised by the controversy was put this way in the *New York Times* on October 20, 1986:

"Once the United States Nuclear Regulatory Commission decides that a [nuclear] power plant has been properly designed, built and staffed, should a state or local government be able to block its operation?

"... The issue [of whether state and local authorities can override a federal decision authorizing a nuclear power plant in the coastal zone to go on line] is expected to reach the court [in Boston] in the next few days because of the [U.S. Nuclear Regulatory Commission's] decision to allow loading of nuclear fuel at the Seabrook plant, in New Hampshire. Its operation is opposed by neighboring towns in Massachusetts."[56]

New Hampshire statutes regulate the siting, construction procedure, decommissioning and other aspects of nuclear power plants. For example, a "bulk power supply facility site evaluation committee" is charged with making findings on siting, land use, and air and water quality concerning a proposed plant, after which the state Council on Resources and Development may issue or deny a certificate authorizing the construction, operation or maintenance of such a plant.[57]

Aside from the state's role with regard to nuclear power plants, New Hampshire exercises broad regulatory authority over the lands and waters within its coastal zone. A general state law provides that the state's Department of Resources and Economic Development and the Fish and Game Department,

"in cooperation with other interested agencies and departments of the state and with the approval of the governor and council, shall be authorized to issue rules and regulations for the purpose of protecting fishing rights, marine life, mining and mineral rights and oil and gas rights of the state and to control pollution in the seaward territory of the state...."[58]

While New Hampshire laws governing such activities as dredging and filling overlap to some extent,[59] the state's principal regulatory agency is the Wetlands Board. This agency was created by the Fill and Dredge in Wetlands Act, passed in 1967 and subsequently amended several times.[60]

In 1969, in the first *Sibson* case,[61] the New Hampshire Supreme Court ruled that the state Port Authority erred in denying the request by Howard and Olivia Sibson, owners of what originally had been a six-acre parcel of marshland, for permission to fill their land. The ruling turned on the fact that the property was *not* adjacent to the types of land expressly subject to regulation under state law.

But in the second *Sibson* opinion, handed down in 1975, the same court upheld the state's restriction on the filling of coastal wetlands as a reasonable exercise of its police power.[62] After the 1969 *Sibson I* decision, the Sibsons legally filled a two-acre portion of their saltmarsh without a state permit; then, by a 1970 statutory amendment,[63] the definition of the term *marshland* was revised so that the statute now clearly would be applicable to the Sibsons' remaining property.[64]

In the *Sibson II* decision of 1975, the court's majority upheld the denial of a permit to fill, stating: "[T]he dismissal of their appeal [from the denial] could be sustained on the basis that their land was not rendered useless, but that they had only been deprived of a speculative profit."[65]

A dissenting justice, while expressing "complete sympathy with those who wish to preserve the marshes," said "the effect of the State's action is to compel the plaintiff to devote his land to a public purpose without compensation by denying him the right to put it to any other reasonably profitable use."[66]

Perhaps the most novel reported New Hampshire Supreme Court decision concerning regulation of coastal activities under the police power involved the previously mentioned hapless surfers in the small beach community of Rye. The court affirmed their conviction of the "offense of surfing in violation of the Town Ordinance and Article 14 of the Town Warrant adopted at the March 1967 Town Meeting."[67] Under state-sanctioned local law, the court held, the town was empowered to confine surfing to certain months during specified hours at only one designated part of the beach.[68]

ACKNOWLEDGMENTS

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REFERENCES

1. *State* v. *Zetterberg*, 109 N.H. 126, 244 A.2d 188 (1968).
2. *Id.* at 127, 244 A.2d at 189.
3. The fines were upheld under the concept that towns are empowered to regulate conduct affecting public safety. *Id.* at 129, 244 A.2d at 191.
4. One of the underlying issues concerning the proposed startup of the 1,150-megawatt reactor at Seabrook, near New Hampshire's border with Massachusetts, is whether state or local governments should be able to block its operation once the Federal Government has approved its generation of power. For a brief discussion, see "Regulatory Functions" under "Leasing and Regulation of Coastal Zone Lands and Waters," *infra*.
5. *N.Y. Times*, Oct. 20, 1986, p. 13 (Nat'l ed.). The United States Nuclear Regulatory Commission decided early in October 1986 to allow loading of nuclear fuel at the Seabrook plant and testing of the reactor at extremely low power. Massachusetts Gov. Michael S. Dukakis planned to appeal the NRC's decision.

6. *Exeter (N.H.) News Letter*, Oct. 14, 1986, p. 1. Among those sued: New Hampshire Gov. John H. Sununu; Edward Brown, president, New Hampshire Yankee (the construction division of the privately owned Public Service Co. of New Hampshire, the principal owner of Seabrook Station); and the New Hampshire Nuclear Decommissioning Financing Committee, a state agency.

   Other legal matters involving the controversial Seabrook plant recently included hearings by the Atomic Safety and Licensing Board, a branch of the federal Nuclear Regulatory Commission, focusing "on the adequacy of the control room ..., its equipment, and the operators who run it." *Exeter (N.H.) News-Letter*, Oct. 17, 1986, p. 1.

7. *New Hampshire Coastal Program, Ocean and Harbor Segment, and Draft Environmental Impact Statement* 1, 2, 1-1, 1-5, 3-1, 4-1, 5-1 (1982) [hereinafter cited as NHCP]. This, the first phase of the state's coastal program, "covers the Atlantic Ocean, the Hampton Estuary, and the Portsmouth Harbor portion of the New Hampshire coast"; the second segment, not yet approved by the Federal Government, will complete "the management program for the entire coast including all areas under tidal influence." *Id.* at 1.

   The first segment of the program was approved by the Federal Government in 1982. It was prepared under the federal Coastal Zone Management Act of 1972, as amended. 16 U.S.C. § 1451 *et seq.*

8. NHCP, *supra* note 7, at 1-3.
9. *Id.* at 1, 2-1. By extending to the state Wetlands Board's jurisdictional limit, the coastal zone encompasses tidal wetlands. *Id.* at app. IV-1.
10. This classification is used for convenience and consistency with other articles in this series. However, in some New Hampshire cases, tidelands, *i.e.*, the lands between the mean high- and low-water marks, are referred to as the *foreshore*.
11. NHCP, *supra* note 7, at 1-2. Of this Atlantic shoreline, 57 percent is beachfront. Less than 0.1 mile of the ocean beach in New Hampshire is privately owned. *Id.* at app. IV-1.
12. *Id.* at 1-2.
13. *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842). Before the American Revolution, the English crown owned all tidelands within New Hampshire that had not been conveyed into private ownership by colonial authorities.
14. 1 R. Powell, *The Law of Real Property* ¶ 50, 57 (Rev. ed. 1986).
15. This 1647 ordinance or general law, as published in 1649, provided in part: "... [I]t is declared that in all creeks, coves and other places, about and upon salt water were the Sea ebs and flows, the Proprietor of the land adjoyning shall have propertie to the low water mark where the Sea does not ebb above a hundred rods, and not more wheresoever it ebs farther...." J. Whittlesey, *Law of the Seashore, Tidewaters and Great Ponds in Massachusetts and Maine* (1932).

   For further discussions of the 1647 ordinance, see *Shore & Beach*, Vol. 50, No.1, January 1982, p. 14 (Massachusetts); Vol. 52, No. 3, July 1984, pp. 17-18 (Maine).

   The 1647 ordinance amended the Massachusetts Bay Colony's ordinance of 1641, which is briefly discussed under "Determination of Tidal Boundaries" and "New Hampshire's Public Trust Doctrine," *infra*.

16. These rights are discussed under "New Hampshire's Public Trust Doctrine," *infra*.
17. About 78 percent of the state's Atlantic shoreline is publicly owned. NHCP, *supra* note 7, at 1-2.
18. See text accompanying *supra* note 11.
19. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
20. *United States* v. *Maine*, 420 U.S. 515, 517-518, 528 (1975).
21. For partial text of the 1647 ordinance, see *supra* note 15.
22. F. Maloney & R. Ausness, *The Use and Legal Significance of the Mean High Water Line in Coastal Boundary Mapping*, 53 N.C. L. Rev. 185, 201 (1974); Comment, *Non Resident Restrictions in Municipally Owned Beaches: Approaches to the Problem*, 40 Colum. J. Law & Soc. Prob. 177, 198 n. 121 (1974).
23. 17 N.H. 524 (1845).
24. In *Nadd* v. *Hobbs*, *id.* at 526-527, it is stated:

   "*The question is not raised, ... by these pleas* [by defendant in justification for his alleged trespass on plaintiff's property] *whether* by the general rules of law *the title of the owner of land bounded on the sea shore extends to low water mark.* It has been held in Massachusetts that the colonial ordinance of 1640 [*sic*], declaring that in all places upon salt water where the sea ebbs and flows, the proprietor of the land adjoining shall own the land to low water mark, or to the distance of one hundred rods, if the the sea ebbs and flows farther than one hundred rods, though never extended to Plymouth, is nevertheless a settled rule of property in every part of that State. [Citations.]

   "By the union of the settlements of New-Hampshire with the colony of Massachusetts, the laws of the Massachusetts colony were extended over these settlements. ... This union continued until 1679, and during that time *the ordinances relating to lands bounding on a sea-shore would seem to have been in force here, as a part of the laws regulating the title to real property. If this be so, it may perhaps be held that the ...* [*legislative enactment*] which provided that the laws [New Hampshire's colonial authorities] had formerly been governed by should be a rule in judicial proceedings, so far as they would suit our constitution, and not be repugnant to the laws of England, until others were legally published, *included the ordinance of 1641* [*sic*], *so that it has been transmitted as the rule in relation to this species of property to the present day.* [Citation.]" (Emphasis added.)

25. *Environmental Law – A Seminar*, 43 N.H.B.J. 99, 117-118 (1971) (emphasis in original).
26. *Id.* at 117 (emphasis added).
27. *Ibid.* (emphasis added).
28. N.H. Rev. Stat. Ann. 483-A:1-a (Supp. 1985) [hereinafter cited as N.H. RSA]. The statute states that " 'mean high tide' as used in this section shall be determined according to the published tables and standards of the United States Coast and Geodetic Survey [now known as the National Ocean Service], adjusted to the locality from such tables." *Id.*
29. For text of the 1647 ordinance, see *supra* note 15.
30. *Nadd* v. *Hobbs*, *supra*, 17 N.H. 524.
31. *Clement* v. *Burns*, 43 N.H. 609, 619-621 (1862).
32. The rule is applied in river cases. See, *e.g.*, *Gerrish* v. *Clough*, 48 N.H. 9 (1868).
33. NHCP, *supra* note 7, at 3-13.
34. For a brief discussion of the public trust doctrine, which may be traced to ancient Roman law and evolved at English common law, see *Shore & Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
35. *Concord Mfg. Co.* v. *Robertson*, 66 N.H. 1 (1889) (under New Hampshire law, a great pond with an area of 10 acres or more is classified along with tidewaters as constituting public waters).
36. *Id.* at 5-8.
37. This ordinance was amended in 1647; for a brief discussion of the ordinance of 1647, see "Determination of Tidal Boundaries," *supra*.
38. *Concord Mfg. Co.* v. *Robertson*, *supra*, 66 N.H. 1.
39. *Id.* at 24 (citations omitted).
40. *Ibid.*
41. *Whitcher* v. *State*, 87 N.H. 405, 181 A.2d 549 (1935). Although the case involved a great pond, *i.e.*, a lake of more than 10 acres in size, the court clearly indicated that the enumerated rights may be exercised in tidal waters which, like the state's great ponds, are public waters.

42. "Public access to coastal waters is impressive with 78% of the Atlantic shoreline under public ownership." NHCP, *supra* note 7, at 1-2.
43. *Id.* at 1-3. "Of New Hampshire's 18 mile Atlantic coastline, 57% is beachfront. Virtually all of this beachfront is accessible for public recreation and enjoyment. Less than 1/10 mile is privately owned." *Id.* at app. IV-1.
44. Bouvier's Law Dictionary 742 (Rawle's rev. 1914), as quoted in *State ex rel. Thornton* v. *Hay*, 254 Or. 584, 462 P. 2d 671, 677 (1969). For a brief discussion of the *Thornton* case and the doctrine of custom, see *Shore & Beach*, Vol. 50, No. 3, July 1982, pp. 11, 13-14.
45. 17 N.H. 524. In that case, however, the court held that a town's inhabitants could *not* justify "an entry into the land of an individual, and by the taking of sea weed and rock-weed therein, for their use, under a custom to do so." *Id.* at 527.
46. 22 N.H. 387 (1851).
47. *Id.* at 405.
48. 254 Or. 584, 462 P. 2d 671.
49. 7 N.H. 233 (1834).
50. *Ibid.*
51. See "Tidelands" under "Title to Lands Within the Coastal Zone," *supra*.
52. See "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.
53. In contrasting New Hampshire law with Massachusetts law, the New Hampshire high court wrote in 1889: "In this state, the transfer of the fee [title in the tidelands] to the [private upland] abutters has not been necessary to encourage improvements below high water mark. Their common-law right of reasonable use has been sufficient for all the purposes for which the [1647 colonial] ordinance changed the common-law title." *Concord Mfg. Co.* v. *Robertson*, *supra*, 66 N.H. 1, 22, 26. See also *Clement* v. *Burns*, *supra*, 43 N.H. at 617-619; N.H. RSA 482:41-e (Supp. 1985).
54. N.H. RSA 4:40-2 *et seq.* (Supp. 1985). Under this law, "The governor and council, upon petition and upon recommendation of the wetlands board after consultation with the fish and game commission and such other state agencies as may be involved, may, for such consideration as they deem just, convey sand and gravel which is on the bed of any navigable water or great pond [10 acres or larger], ..."
55. *Id.* 1:16 (Supp. 1985).
56. *N.Y. Times*, Oct. 20, 1986, p. 13 (Nat'l ed.). The article also stated:

    "The Seabrook plant [in New Hampshire's coastal zone], an 1,150 megawatt reactor undertaken by the Public Service Company of New Hampshire in conjunction with 15 other utilities serving all six New England states, was conceived a decade before the [1979] Three Mile Island accident, at a time when utilities thought that putting their generators close to major consumers would improve the reliability of electricity supplied.

    "...

    "In New England, some New Hampshire towns would like to prevent operation of Seabrook, but they have been overruled by Gov. John H. Sununu. Gov. Michael S. Dukakis of Massachusetts was considering whether to back the border towns in his state when the Chernobyl explosion occurred.

    "... Mr. Dukakis wants the [Seabrook] fuel loading stopped.... Massachusetts officials say they will appeal the [federal NRC's] order."
57. N.H. RSA 162-F:3, 7, 8 (Supp. 1985).
58. *Id.* 1:16 (Supp. 1985).
59. See, *e.g.*, *id.* 149:8-a (Supp. 1985), 483-A:1 *et seq.* (Supp. 1985).
60. *Id.* ch. 483-A (Supp. 1985). For discussions of pertinent New Hampshire legislation, see Stusse, *Wetlands Legislation in New Hampshire*, 18 N.H.B.J. 265 (1977); *Environmental Law – A Seminar; Pt. III: Public vs. Private Interests in Water*; *supra* note 25, 13 N.H.B.J. at 115-116, 119-120.
61. *Sibson* v. *State*, 110 N.H. 8, 259 A.3d 397 (1969) *(Sibson I)*. A similar result occurred in *Pic-N-Pay, Inc.* v. *State*, 110 N.H. 16, 259 A.2d 659 (1969).
62. *Sibson* v. *State*, 115 N.H. 124, 336 A.2d 239 (1975) *(Sibson II)*.
63. Added by N.H. Laws 1970, 22:1; codified at N.H. RSA 483-A:1a (Supp. 1985).
64. 115 N.H. at 125-126, 336 A.2d at 240-241.
65. *Id.* at 127, 336 A.2d at 241.
66. *Id.* at 130-131, 336 A.2d at 242-243. For discussions of the *Sibson* litigation, see Dawson, *Protecting Massachusetts Wetlands*, 12 Suffolk L.Rev. 755, 771, 785-786 (1978); Shortill, *State Regulation of Marshlands: Sibson v. State*, 17 N.H.B.J. 68 (1975). See also 19 N.H.B.J. 258 (1977).
67. *State* v. *Zetterberg*, *supra*, 109 N.H. at 129, 244 A.2d at 191.
68. *Id.* at 128, 244 A.2d at 190.

The Law of the Coast in a Clamshell*

Part XXIV: The Pennsylvania Approach

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PHILADELPHIA – where the United States Constitution was signed 200 years ago this September – lies at the center of Pennsylvania's highly industrialized Delaware Estuary coastal zone. Located at the juncture of the Delaware and Schuylkill Rivers, the city is both an historic treasure and a busy seaport.

Historic sites and port activities are two of the 10 coastal issues addressed by the Commonwealth of Pennsylvania's Coastal Zone Management Program.[1] This program was approved by the Federal Government in 1980.

While the Keystone State's Delaware Estuary zone is usually associated with manufacturing and shipping, it also affords recreational opportunities and serves as a fish and wildlife habitat.[2] Among policies enunciated in the coastal program are providing additional public access for recreation, improving water quality and enhancing fish habitat.[3]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Under the Pennsylvania Coastal Zone Management Program, the state has two separate coastal zones: the Delaware Estuary coastal zone and the Lake Erie coastal zone.[4] The Delaware Estuary zone extends 57 miles along the tidal portion of the Delaware River; it varies in width from ⅛ mile in urban areas like Philadelphia to 3½ miles in Bucks County.[5]

Lands within this coastal zone may be classified as uplands, tidelands and submerged lands.[6]

A. Uplands

Most of the uplands within the Delaware Estuary coastal zone are, of course, privately owned. Geographically, the zone embraces the Tinicum Marsh, covering about 500 acres, all that remains of the tidal wetlands that originally encompassed at least 13,000 acres in Pennsylvania's Delaware County and Philadelphia.[7] However, since this marsh is owned by the Federal Government, it is excluded under federal law from the state's coastal management program.[8]

B. Tidelands

In Pennsylvania, as in a few other Eastern states,[9] most of the tidelands are in private ownership. Although riparian owners' title to the strip of land between the high- and low-water marks is generally recognized,[10] it is unclear how the state departed from the English common-law rule of sovereign ownership of such lands.

C. Submerged Lands

As successor to the English crown, the Commonwealth of Pennsylvania owns submerged lands within the Delaware River and other navigable rivers and streams.[11]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

Because of the public's rights in the privately owned tidelands, which will be discussed below,[12] the location of the upland/tideland boundary can be significant.

In an 1837 case, the Pennsylvania Supreme Court referred to the "ordinary high-water mark" as being the landward limit of the "common highway, over which all citizens and aliens may sail."[13] Subsequent case law does not appear to have defined the upland/tidal boundary any more specifically.

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* This is the twenty-fourth in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the Commonwealth of Pennsylvania concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1987 by Peter H. F. Graber. The author also asserts copyright protection for the first 23 articles in this series.

B. Tideland/Submerged Land Boundary

The "ordinary low-water mark" constitutes the legal boundary between privately owned riparian lands and the portion of the Delaware River and other tidal rivers and streams owned by the commonwealth.[14] The Pennsylvania Coastal Zone Management Program document states that this line is "defined as the height of water at ordinary stages of low water unaffected by drought or artificial means."[15]

C. Legal Effect of Physical Changes in the Location of the Shoreline

As a property boundary, the ordinary low-water mark moves waterward with gradual, imperceptible accretion.[16] But private riparian owners are not entitled to land formed by the deposit of material on the river bottom either by them or with their knowledge or consent.[17]

PENNSYLVANIA'S PUBLIC TRUST DOCTRINE

In 1971 the Environmental Rights Amendment was added to the Pennsylvania Constitution. This amendment reads in part:

> "... Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."[18]

This constitutional provision is networked into the Pennsylvania Coastal Zone Management Program.[19]

Since colonial days, the importance of the Delaware River as a common highway for navigation has been legislatively recognized.[20] In addition, many Pennsylvania Supreme Court decisions refer to the public's rights to use tide-flowed lands. As early as 1837 the court noted that private ownership of the tidelands was subject to the right of the public to navigate over such lands when covered by water.[21]

An 1861 decision[22] broadly stated the public's rights in the Delaware River as follows:

> "... It has never been considered a trespass against the state to gather stone, gravel, and sand out of the bed of our public rivers, or to take fish, or ice, or driftwood there, or to bathe in the public waters, ..."[23]

PUBLIC ACCESS RIGHTS

Since the Delaware Estuary coastal zone is so heavily developed, public access to navigable waters is limited; however, the commonwealth, in cooperation with local governments, has provided access at a number of areas of recreational, historical and ecological importance.[24]

The Pennsylvania Coastal Zone Management Program document calls for improving public access.[25]

PRIVATE RIPARIAN RIGHTS

Besides the right to gradual, natural accretions to their property,[26] private riparian owners have a common-law right of access to the adjoining river and the right to make a landing wharf or pier for their own or the public's use, subject to the public's rights.[27]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

The Department of Environmental Resources, with the governor's approval, may enter into agreements for the recovery of ore, fuel, oil, natural gas or any other mineral deposits beneath lands owned by the commonwealth.[28]

B. Regulatory Functions

Pennsylvania's Coastal Zone Management Program is being implemented through a number of statutory provisions that are networked into the program.[29] The Department of Environmental Resources is the lead agency for administering the program.[30]

One of the principal laws incorporated into the program is the Floodplain Maintenance Act of 1978.[31] Under this act, each municipality identified as having an area or areas subject to flooding was required to adopt floodplain management regulations.

The Dam Safety and Encroachments Act[32] requires permits from the Department of Environmental Resources before any dam, water obstruction or encroachment is constructed, operated, maintained, modified, enlarged or abandoned. Dredging and filling activities are regulated as encroachments.[33]

Among other state laws networked into the program that are particularly significant in the Delaware Estuary zone are the Soil Conservation Law,[34] the Clean Streams Law,[35] the Open Space Lands Act,[36] the Solid Waste Management Act,[37] the Sewage Facilities Act[38] and the Historic Preservation Act.[39]

REFERENCES

1. The program was prepared under the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq.* Among other coastal resource management issues addressed in the program are coastal hazards, dredging and spoil disposal, and energy facility siting. *Commonwealth of Pennsylvania Coastal Zone Management Program and Final Impact Statement* [hereinafter cited as PCZMP] i (1980).
2. *Id.* at i, II-12-4.
3. *Id.* at II-2-12-16, II-2-18-20.

4. *Id.* at i, II-1-1. Pennsylvania and New York are the only two coastal states with such widely separated coastal zones. Because this series has focused on the law of the coast along the open sea and in estuarine areas, the article on New York did not discuss the Great Lakes St. Lawrence River portion of New York's coastal zone. See *Shore & Beach*, Vol. 51, No. 3, July 1983, p. 7. Similarly, this article will not discuss Pennsylvania's Lake Erie coastal zone.
5. The zone extends eastward to the New Jersey state boundary, which is the middle of the Delaware River, southward to the Delaware state boundary, northward to the falls at Morrisville, where the tidal influence on the Delaware ends, and westward to include the floodplains of the Delaware and Schuylkill Rivers, the upper limit of tidal influence on their tributaries, and tidal and freshwater coastal wetlands. PCZMP, *supra* note 1, at II-1-1, II-1-12, IV-1.
6. This classification is used for convenience and consistency with other articles in this series.
7. PCZMP, *supra* note 1, at IV-1.
8. *Id.* at II-1-11, II-3-13-14.
9. The other states are Delaware, Maine, Massachusetts and Virginia. In New Hampshire, some private titles extend to the low-water mark, but along the state's Atlantic Ocean shoreline, most of the littoral lands are publicly owned. See *Shore & Beach*, Vol. 55, No. 1, January 1987, pp. 12-13. In New York, some tidelands are privately owned. *Shore & Beach*, Vol. 51, No. 3, July 1983, pp. 10-11.
10. PCZMP, *supra* note 1, at II-3-37; F. Maloney & R. Ausness, *The Legal Significance of the Mean High Water Line in Coastal Boundary Mapping*, 53 N.C.L. Rev. 185, 201 (1974).
11. PCZMP, *supra* note 1, at II-3-37; *Rose* v. *Mitsubishi Int'l Corp.*, 423 FSupp. 1162, 1165 (E.D.Pa. 1976).
12. See "Pennsylvania's Public Trust Doctrine," *infra*.
13. *Ball* v. *Slack*, 2 Whart. 507, 538 (1837).
14. *Black* v. *American Int'l Corp.*, 264 Pa. 260, 262, 107 A. 737, 738 (1919); *Rose* v. *Mitsubishi Int'l Corp.*, *supra*, 423 FSupp. at 1165.
15. PCZMP, *supra* note 1, at II-3-37.
16. *Black* v. *American Int'l Corp.*, *supra*, 264 Pa. 262, 107 A. 738.
17. *Ibid.*
18. Pa. Const. art. I, § 27.
19. PCZMP, *supra* note 1, at II-A-1-3.
20. *McKeen* v. *Del. Div. Canal Co.*, 49 Pa. 424, 434 (1865).
21. *Ball* v. *Slack*, *supra*, 2 Whart. at 538-539.
22. *Solliday* v. *Johnson*, 38 Pa. 380 (1861).
23. *Id.* at 381.
24. PCZMP, *supra* note 1, at II-3-39-40.
25. *Id.* at II-2, 14-15, II-2-17-20, II-3-40-41-49.
26. See "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *supra*.
27. *Philadelphia* v. *Commonwealth*, 284 Pa. 225, 130 A. 491 (1925).
28. PCZMP, *supra* note 1, at II-A-13.
29. *Id.* at ii-iii, II-4-4-5.
30. *Id.* at II-4-4, II-4-7.
31. 32 Pa. Stat. § 679.101 *et seq.*
32. *Id.* § 693.1 *et seq.*
33. PCZMP, *supra* note 1, at II-A-5.
34. 3 Pa. Stat. § 849 *et seq.*
35. 35 Pa. Stat. § 691.1 *et seq.*
36. 32 Pa. Stat. § 5001 *et seq.*
37. 35 Pa. Stat. § 6001 *et seq.*
38. *Id.* § 750.1 *et seq.*
39. 71 Pa. Stat. § 1047(o) *et seq.*

Editorial *(continued from page 2)*

What can be done about the eroded section of Westhampton Beach? In my opinion there are only two possible solutions, namely:

- Remove the 13-groin field and allow this shore to go back to its natural condition.
- Construct groins in the eroded area as provided in the original design of the groin field and replenish the beach around these groins.

The value of the development within, and east of, the groin field probably makes removal of the groin field unacceptable to the owners and to tax collectors.

USA TODAY also states that "Federal, state and local governments will pay $50 million to replace the sand. Homeowners are to pay 10 percent of the $70 million maintenance tab."

The groin field has been in place since 1962 and has demonstrated conclusively that a beach may be stabilized in that area by groins. There is no reason to expect that sand alone in this area will not sometime experience the same wave environment as that which caused the breakthrough in 1982.

These considerations lead me to the conclusion that the proposed solution of placing sand without groins is unsound. It will not only waste money but will for a time lull the property owners into a false sense of security about recurrence of serious erosion.

Morrough P. O'Brien
Immediate Past President

The Law of the Coast in a Clamshell*

Part XXV: The Alabama Approach

BY PETER H. F. GRABER
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DURING WORLD WAR II, the Army Corps of Engineers dredged a ship channel in Mobile Bay. The dredge spoils were deposited onto the adjoining uplands owned by Sidney W. Gill. Later, the State of Alabama sued him, claiming title to the 55.91 acres of what the state's Supreme Court called "artificial, unnatural, man-made accretion or reclamation."[1]

Which party was entitled to the silt and sand that had been pumped from the bed of the bay but had become "high, solid, firm ground covered with grass, shrubs and trees"[2]: the state, as owner of the land underlying the bay, or Mr. Gill, the private littoral owner?

The Alabama Supreme Court in 1953 concluded that the "made-land" created by what the justices innovatively termed *"streamlined accretion"* should be the property of the private landowner. The court pointed out that the state's title to lands beneath navigable waters is "a title to the bed as a bed and not to the individual grains of sand or lumps of mud that constitute the land making up the bed."[3]

Today, it is issues such as widespread erosion—instead of "streamlined accretion"—and public access to the waters of Mobile Bay and the Gulf of Mexico that are major concerns in the coastal zone of the state nicknamed the Heart of Dixie. The 1979 Alabama Coastal Area Management Program addresses these and other contemporary issues.[4]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Under the Alabama Coastal Area Act of 1976,[5] the state's coastal zone embraces lands and waters[6] within two counties[7] lying between the outer limit of the United States' territorial sea and an inland boundary described as "the continuous 10-foot contour where the land surface elevation reaches 10 feet above mean sea level."[8] The zone includes Mobile Bay, portions of Perdido Bay and Mississippi Sound, and some reaches of the Mobile River and several other tidal waterways, as well as Gulf of Mexico waters adjoining the Gulf coast and such islands as Dauphin Island.[9]

Legally, lands within the coastal area may be classified as uplands, tidelands and submerged lands.[10]

A. Uplands

Most uplands adjoining Alabama's 504-mile estuarine and Gulf shoreline[11] are in private hands, although the Federal Government and the state own some key areas.[12]

B. Tidelands

The United States Supreme Court, in a landmark 1845 decision, *Pollard's Lessee v. Hagan*,[13] held that title to lands beneath tidal waters within Alabama passed to the state when it joined the Union in 1819.[14] Under an earlier decision, the court had held that the original states, as successors to the English crown, were the sovereign owners of tidelands that had not previously been granted into private ownership by the pre-Revolutionary War colonial authorities.[15]

In *Pollard's Lessee*, the court for the first time applied the legal concept known as the *equal-footing doctrine*[16] to hold that subsequently admitted states enjoy the same rights, sovereignty and jurisdiction over lands beneath navigable waters—such as the tide-flowed land involved in that case[17]—as do the original states.[18]

A century after *Pollard's Lessee* was decided, an interesting lawsuit focused on Pinto Island, originally a marsh island, which is located on the east side of the Mobile River where its waters empty into Mobile Bay.[19] In a 1949 opinion, the U.S. Court of Appeals for the Fifth Circuit found that "nearly, if not quite, all of the land sought to be condemned [by the Federal Government] is not true fast land but is land made by filling submerged land, that is land subject to tidal flow; and that if any of it at the time of the taking was natural fast land, it was only a small part."[20] The court held that even though the waters sometimes covering the subject portion of the island were so shallow as to be non-navigable, they nevertheless belonged to the State of

* This is the 25th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Alabama concerning the coastal zone, with emphasis on the state's rules of law for tidal boundary determination. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1988 by Peter H. F. Graber. The author also asserts copyright protection for the first 24 articles in the series.

Alabama because they were part of Mobile Bay, a navigable body of water.[21]

An 1867 state legislative grant of tidelands to the City of Mobile was upheld by both the Alabama and United States Supreme Courts.[22] The nation's highest tribunal pointed out that private upland ownership extends only to the high-water mark under state law.[23]

C. Submerged Lands

Alabama has dominion and control of submerged lands extending 3 geographic miles Gulfward from its coast under the Submerged Lands Act passed by Congress in 1952.[24] However, a state claim to lands beyond the 3-mile limit was turned down by the U.S. Supreme Court in 1960.[25]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

As in most coastal states, the "ordinary" or "usual" high-water mark demarcates the legal boundary between private property and the adjoining state-owned tidelands in Alabama.[26] The Legislature and the state's appellate courts do not appear to have expressly defined this common-law boundary with any more precision.

However, a recent case refers to the "*mean* high tide line,"[27] suggesting that Alabama may follow the federal rule of averaging *all* the high waters over a 19-year cycle in determining the tidal datum to be used in locating the ordinary high-water mark on the ground.[28]

B. Legal Effect of Physical Changes in the Location of the Shoreline

In Alabama, it has long been established that littoral landowners are entitled to additions formed by *natural* accretion to their property.[29] A more difficult question faced the state Supreme Court in the previously mentioned 1953 case, *State v. Gill*:[30] ownership of 55.91 acres of *artificially* accreted land that had formed because of the Federal Government's World War II dredging operations.

The Army Corps of Engineers had pumped silt and sand from the bed of Mobile Bay and placed it along and adjacent to the shore of Sidney W. Gill's littoral property; the Corps had neither obtained his permission nor compensated him for the resulting manmade change in the shoreline.[31]

In deciding that, as between the state and the private landowner of the adjoining upland property, the new "made-land" should belong to the littoral or riparian owner,[32] the Alabama court applied state rather than federal law. The tribunal said that "the authorities in this state are decisive of the question . . . and appear to demonstrate the right of riparian [or littoral] owners to artificial accretion increasing the land area by building out from it."[33]

The court coined the term "*streamlined accretion*" in discussing its rationale for awarding the accretion to the upland owner:

> ". . . If [the dredging] had been done by slow, gradual and imperceptible additions to the shore line, this could be called 'accretion.' Without doubt under the common law the legal title of such accretion would vest in the riparian owner. It is obvious that we do not have in the case of bar an accretion by any slow or imperceptible processes. It has been suggested that the speeded up, artificial accretion, such as we have in the present case, could well be called '*streamlined accretion*,' or perhaps a reclamation.
>
> "It seems . . . that the Alabama cases . . . indicate that where there is what we have termed a streamlined accretion, . . . title to such made-land is conferred upon the upland owner, subject only to the paramount rights of the United States and the State in aid of navigation. . . . [T]he title to the bed or bottom beneath navigable waters is in the state, but this is a title to the bed as a bed and not to the individual grains of sand or lumps of mud that constitute the land making up the bed. Consequently there is no title inherent in a gallon of fluid mud, silt or clay that comes from the bottom and flows through the pipes of an hydraulic dredge to its final resting place in the new land that it makes. The state still owns the title to the bed beneath the navigable waters, but the made-land being added to the property of the riparian or littoral owner becomes his property."[34]

In 1979, in *Reid v. State*,[35] the Alabama Supreme Court applied both the *Gill* decision's rule and the U.S. Fifth Circuit Court's Pinto Island opinion to affirm a trial court judgment that the state was entitled to certain artificially accreted land. Under the facts of the case, the trial court had held that title to the manmade land was divided between the state and two private landowners. Two other private owners of adjoining property appealed, arguing that the trial court had erred.

The Supreme Court affirmed the judgment, saying that the Circuit Court's statement of Alabama law in the Pinto Island litigation was controlling.[36] Thus, in the unusual factual context of the *Reid* case, two private upland owners gained the benefit of artificial accretion, while the state instead of two other private landowners obtained title to adjacent manmade land.

Erosion has become a serious concern in Alabama. "More than 90 percent of Alabama's Gulf shoreline is eroding, and 33 percent of the bay-estuary shoreline is eroding," according to the state's 1979 Coastal Area Management Program document.[37]

ALABAMA'S PUBLIC TRUST DOCTRINE

The public trust doctrine—the common-law concept that the public has the right to use tide and submerged lands irrespective of who owns them—does not appear to have been clearly defined in decisions by Alabama's appellate

courts.[38] The courts, however, have referred to such public rights in tidal waters as navigation and fishing.[39]

As mentioned earlier, the state Supreme Court, in a 1900 decision, upheld an 1867 state legislative grant to the City of Mobile of a portion of the shore of the Mobile River, a tidal waterway, below the high-water mark.[40] The tribunal affirmed a judgment in favor of the city and against a party claiming under a patent issued by the United States in 1836, many years after Alabama had joined the Union.[41]

Responding to an argument that the state could not grant the property to the city, thereby divesting itself of the trust under which such shoreland was held, the court said:

> "... [This] grant ... was made for the purpose of making it effective for the public good. ... It cannot be doubted that the State may convey the fee [title] in such shore, subject, of course, to the paramount rights of the United States respecting navigation, and *particularly so when the conveyance is in furtherance of the public interests.*"[42]

One legal writer opined in 1959 that this language in the Mobile opinion would be limited to the facts of the case,[43] and that Alabama's public trust doctrine "would not be applied to conveyances to individuals, the only restriction in such instances being a requirement that the land not be put to a use inconsistent with the public rights."[44]

PUBLIC ACCESS RIGHTS

Public access to Mobile Bay, the Gulf of Mexico and other tidal waters within Alabama's coastal zone is provided by a total of 10,963 acres of publicly owned or maintained recreation areas, including state, county and municipal parks and boat-launching ramps, according to the state's 1979 Coastal Area Management Program document.[45] Under case law, members of the general public have the right of passage to navigable waters by public roads leading to such waters.[46]

There have been legislative efforts to improve access to the shore in South Mobile County, especially on Dauphin Island.[47] The Coastal Area Management Program document states: "Future efforts should be aimed at providing adequate recreational opportunities and beach access, while protecting the integrity of the coastal resources and rights of private property owners."[48]

PRIVATE LITTORAL RIGHTS

Apart from any right of access that the general public may have, the littoral and riparian owners of private property adjoining tidal waters in Alabama enjoy their own individual rights of access to reach the navigable portion of those waters. The state's highest court pointed out that such landowners, by immemorial usage and custom, have such a private right of access; this right, however, is subject to the Federal Government's paramount rights under the U.S. Constitution and the general public's rights of navigation.[49]

In the previously mentioned 1949 federal case involving Pinto Island, the Fifth Circuit Court of Appeals applied Alabama law to hold that this private right of access is merely a "way of necessity" to reach navigable waters, and that while the upland owners might be able to place fill along the shore to enhance such access, that right could not ripen to a full fee title against the state and its grantee.[50]

Under Alabama's common law, private landowners of property abutting navigable waters have a right to build wharves, piers, docks or piles, subject to governmental rules and regulations for the protection of the public.[51] A statute, originally enacted in 1915, codifies such rights.[52] Another statutory provision, designed "to encourage the building of bridges, causeways and other development work and relief work," authorizes

> "the owner of any lands ... abutting on tidelands, the title to which or control of which may now or hereafter be vested in the state ..., which shall not have been improved by or under valid public authority and shall not be otherwise devoted to public use, ... to acquire such tidelands and to fill, reclaim or otherwise improve same and to fill in, reclaim or otherwise improve the abutting submerged land and to own, use, mortgage and convey the lands so reclaimed, filled or improved, and any improvements thereon, ..."[53]

Owners of land fronting on "rivers, bayous, lagoons, ... bays, sounds and inlets" where oysters may be grown have a qualified statutory "right to plant and gather [oysters] in front of their land to the distance of 600 yards from the shore measured from the average low water mark, ..."[54] The law provides that "[n]o riparian right shall vest in any person to any part of the natural and public reefs; ... [and] the department of conservation and natural resources shall have authority to regulate the time, manner, means or place or places for planting oysters or oyster shells."[55]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

A law enacted in 1956 authorizes the state to lease certain tide-flowed lands for mineral exploration and development. The law provides in part:

> "The commissioner of conservation and natural resources, ... is ... authorized to lease any lands ... under any navigable waters, bays, estuaries, lagoons, bayous ... and the shores along any navigable waters to high tide mark and submerged lands in the Gulf of Mexico within the historic seaward boundary to this state, which is hereby declared to extend seaward six leagues from the land bordering the gulf, for the exploration, development and production of oil, gas and other minerals, ..."[56]

The Alabama Supreme Court in 1961 upheld a state lessee's rights in state-owned land beneath shallow waters of Mobile Bay, and ruled that the lessee was not interfering with the access rights of owners of bayshore property by filling in the leased land.[57]

Under a statutory scheme that originated in the late 19th century, the state leases bottomlands for oyster cultivation. One law empowers the commissioner of conservation and natural resources to lease "for the purpose of oyster culture, any bottom of the waters of the state in a natural oyster bed or reef."[58]

B. Regulatory Functions

The Alabama Coastal Area Act of 1976[59] provides the statutory framework within which the state's coastal zone is managed. Under that act, the state Coastal Area Board (CAB) is the principal agency responsible for management in the zone.[60] In implementing the Alabama Coastal Area Management Program developed by CAB, the state Department of Environmental Management, created in 1982, has promulgated rules and regulations.[61]

As to uses within the coastal area regulated by other state agencies,[62] the Coastal Area Act of 1976 provides:

> "... The department shall review the permitting activities of persons ... in order to insure consistency with the ... management program. No agency can issue a permit for any activity in the coastal area that the department ... finds to be inconsistent with the ... management program."[63]

With regard to so-called "nonregulated uses"—that is, uses having a "direct and significant impact" on the coastal area, but which do not require a permit from another state agency—an application must be made for a CAB permit. Among such uses: construction on beaches and dunes and in the 100-year floodplain.[64]

ACKNOWLEDGMENTS

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REFERENCES

1. *State v. Gill*, 259 Ala. 177, 66 So.2d 141 (1953).
2. *Id.* at 179, 66 So.2d at 142.
3. *Id.* at 183, 66 So.2d at 145. For a brief discussion of this case, see "Legal Effect of Physical Changes in the Location of the Shoreline" under "Determination of Tidal Boundaries," *infra*.
4. *The Alabama Coastal Area Management Program and Final Environmental Impact Statement* (1979) [hereinafter cited as ACAMP] 36, 38-39, 41-42, 137, 150, 193-220. The program was prepared under the federal Coastal Zone Management Act of 1972, as amended, 16 U.S.C. § 1451 *et seq.*, and approved by the Federal Government on Sept. 25, 1979.
5. 1976 Ala. Acts 534; codified at Ala. Code §§ 9-7-10 to 9-7-20 (1987 repl. vol.).
6. Alabama's coastal area has some 400,000 acres of bay and estuarine waters and 121,000 acres of wetlands. ACAMP, *supra* note 4, at 55.
7. Baldwin and Mobile Counties, which consist of lands along the east and west shores of Mobile Bay, respectively, are the only two counties within the coastal area. ACAMP, *supra* note 4, at 63-65.
8. *Id.* at 63.
9. *Id.* at 64-65.
10. This classification is used for convenience and consistency with other articles in this series. There is some semantic confusion, however, because the courts may use the term *submerged lands* to refer to lands between the lines of mean high and mean low water, or what this series defines as *tidelands*. For example, see *United States v. Turner*, 175 F.2d 644, 645-646 (5th Cir., 1949), *cert. denied*, 338 U.S. 851 (1950), *rev'g United States v. Property on Pinto Island*, 74 F. Supp. 92 (D.C. Ala. 1947). In this case, which is discussed in the text accompanying notes 19-21 *infra*, the U.S. Court of Appeals for the Fifth Circuit referred to lands "below mean high tide" as "submerged land" when such lands appear to have been extremely shallow tidelands.
11. ACAMP, *supra* note 4, at 36.
12. Under the Coastal Zone Management Act, federally owned and leased lands are excluded from the various states' coastal zones. 16 U.S.C. § 1453(a).
13. 44 U.S. (3 How.) 212, 223, 228-230 (1845).
14. Alabama was admitted to the Union on Dec. 14, 1819. Act of Admission, 3 Stat. 492.
15. *Martin v. Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842).
16. For a brief discussion of the equal-footing doctrine, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 15-16.
17. The land was located within the City of Mobile. Plaintiffs asserted title under an 1836 patent from the United States. Defendants, who claimed under a grant from Spain before the United States acquired the area, introduced evidence that the disputed property had been covered by " 'water of the Mobile river at common high tide' " between 1819 and 1823. The jury was instructed that if " 'they believed the premises ... were below usual high-water mark, at the time Alabama was admitted into the union [in 1819], then ... the [1836 federal] patent ... could give the plaintiffs no title, whether the waters had receded by the labour of man only, or by alluvion; ... ' " *Pollard's Lessee v. Hagan, supra*, 44 U.S. (3 How.) at 220. The jury found for defendants. The U.S. Supreme Court affirmed on a writ of error from the Alabama Supreme Court. *Id.* at 219-220, 230.
18. The U.S. Supreme Court summarized its conclusions as follows: "First, The shores of navigable waters, and the soils under them, were not granted by the Constitution to the United States, but were reserved to the states respectively. Secondly, The new states have the same rights, sovereignty, and jurisdiction over the subject as the original states. Thirdly, The right of the United States to the public lands, and the power of Congress to make all needful rules and regulations for the sale and disposition thereof, conferred no power to grant to the plaintiffs the land in controversy in this case." *Id.* at 230.
19. *United States v. Property on Pinto Island, supra*, 74 F. Supp. 92, 94, *rev'd sub. nom. United States v. Turner, supra*, 175 F.2d 644, *cert. denied*, 338 U.S. 851. This was a condemnation action begun by the United States against Horace Turner in 1941, at which time the part of the island being condemned was "all reclaimed land of an area nearly twice that of the whole island when granted by the government in 1859." *United States v. Property on Pinto Island, supra*, 74 F. Supp. at 94.
20. *United States v. Turner, supra*, 175 F.2d at 646.

21. *Id.* at 647-649.
22. *Mobile Transp. Co. v. City of Mobile*, 128 Ala. 335, 30 So. 645 (1900), *aff'd*, 187 U.S. 479 (1903). See also *Mobile Transp. Co. v. City of Mobile*, 153 Ala. 409, 44 So. 976 (1907).
23. 187 U.S. at 486. The state's ownership of lands lying under Mobile Bay and such tidal waterways as the Mobile River is well-established under Alabama law. See, *e.g.*, *City of Mobile v. Eslava*, 9 Port. 577 (1839).
24. 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*
25. *United States v. Louisiana*, 364 U.S. 502, 503-504 (final decree), 363 U.S. 1, 82, 121 (opinion) (1960).

    Interestingly, the Alabama Constitution of 1875, like the 1819 Act of Admission, 3 Stat. 492, provided that the state boundaries extend "to the Gulf of Mexico [and] thence eastwardly, including all islands within six leagues of the shore, . . . " Ala. Const. of 1875, art. II, § 1. In English-speaking countries, a league is roughly three miles; Alabama thus defined its boundaries as extending into the Gulf about 18 miles. The same provision is in the state's 1901 Constitution. Ala. Const. of 1901, art. ii, § 37.

    An Alabama statute, which was enacted in 1956—*before* the U.S. Supreme Court rejected the state's claim to submerged lands beyond the 3-geographical-mile limit—but which has not been repealed, provides in part that "the historic seaward boundary of this state . . . is hereby declared to extend seaward six leagues from the land bordering the gulf." Ala. Code § 9-17-62 (1987 repl. vol.).
26. *Mobile Transp. Co. v. City of Mobile*, *supra*, 128 Ala. at 348, *aff'd*, 187 U.S. at 486.
27. *Reid v. State*, 373 So. 2d 1071, 1074. (Emphasis added). In addition, the federal appellate court that handed down the decision involving Pinto Island, discussed in "Tidelands" under "Title to Lands in the Coastal Zone," *supra*, mentioned "mean high tide," presumably referring to the tidal datum of mean high water. *United States v. Turner*, *supra*, 175 F.2d at 645. But the lower court, discussing the evidence at the trial, used the nonscientific legal term "ordinary high tide." *United States v. Property on Pinto Island*, *supra*, 74 F. Supp. at 99.
28. This is the principle enunciated in *Borax, Ltd. v. City of Los Angeles*, 296 U.S. 10 (1935). See *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and Vol. 49, No. 2, April 1981, pp. 21-22.
29. *Pippen v. Carpenter*, 208 Ala. 1, 93 So. 878 (1922).
30. 259 Ala. 177, 66 So.2d 141. See brief discussion *supra* in text accompanying notes 1-3. It is noteworthy that the *Gill* case was decided by the state Supreme Court *after* the U.S. Court of Appeals for the Fifth Circuit, applying Alabama state law, had made its ruling in the previously discussed *United States v. Turner*, *supra*, 175 F.2d 644. See brief discussion of that case and the earlier trial court opinion in the same suit *supra* in text accompanying notes 19-21.
31. 259 Ala. at 180, 66 So.2d at 142.
32. *Id.* at 180, 182, 66 So.2d at 142, 144-145.
33. *Id.* at 180, 66 So.2d at 142.
34. *Id.* at 183, 66 So.2d at 145.
35. 373 So.2d 1071.
36. *Id.* at 1074.
37. ACAMP, *supra* note 4, at 38.
38. For a brief discussion of the public trust doctrine, which has antecedents in ancient Roman law, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 18-19.
39. See, *e.g.*, *State v. Alabama Power Co.*, 176 Ala. 620, 625, 626, 58 So. 462, 463 (1912).
40. *Mobile Transp. Co. v. City of Mobile*, *supra*, 128 Ala. 335, 30 So. 645.
41. *Id.* at 348, 30 So. at 647.
42. *Id.* at 349, 30 So. at 648.
43. The statutory grant, approved in 1867, provided that the granted land be held for the public good. 1866 Ala. Acts 278 at p. 463.
44. Rogers, "Title to Subaqueous Lands in Alabama," 11 Ala. L. Rev. 273, 285 (1959). This article states:

    "The trust concept imposed by the court has had effects beyond that of requiring the grantee to use the land in a manner not inconsistent with the public rights. For example, in the *Mobile Transportation Co.* case, the court held that the grant was in trust for the furtherance of the public interest and was therefore not subject to the city's debts . . . [T]he language of the *Alabama Power Co.* case [*State v. Alabama Power Co.*, *supra*, 176 Ala. 620, 58 So. 462] could be construed as requiring a trust in all cases. If the concept was carried to the point of impressing such requirements on grants to individuals, it could become of major import with respect to oil and gas leases. However, should the question arise, it is the opinion of this writer that the rule of the *Mobile Transportation Co.* case would be held a result of the wording of the specific grant, and it would not be applied to conveyances to individuals, the only restriction in such instances being a requirement that the land not be put to a use inconsistent with the public rights. The Attorney General of Alabama has stated this to be the case in an advisory opinion to the director of conservation relating to a proposed oil and gas lease of the bed of the Alabama River." *Id.* at 285 (footnotes omitted).
45. ACAMP, *supra* note 4, at 36. The document points out that additional "[a]ccess to coastal recreational opportunities is . . . provided by numerous fish camps, privately operated boat ramps and marinas," which "often provide access to areas [where] no public facilities are available." *Ibid.*
46. *Howard v. State*, 23 Ala. App. 228, 124 So. 912 (1929).
47. ACAMP, *supra* note 4, at 36.
48. *Ibid.*
49. *McDonnell v. Murnan Shipbuilding Corp.*, 210 Ala. 611, 98 So. 887 (1924).
50. *United States v. Turner*, *supra*, 175 F.2d at 647.
51. *McDonnell v. Murnan Shipbuilding Corp.*, *supra*, 210 Ala. 611, 98 So. 887.
52. Ala. Code § 33-7-50 (1987 repl. vol.) provides in part: "The owner of riparian lands upon navigable waters . . . may install in front of their [*sic*] respective riparian lands wharves, docks, warehouses, sheds, tipples, chutes, elevators, conveyors and the like for receiving, discharging, storing, protecting, transferring, loading and unloading freight and commodities of commerce to and from vessels and carriers, and may use their [*sic*] riparian lands in connection therewith and dredge out and deepen the approaches thereto, and may charge and collect reasonable tolls for the use thereof. . . . "

    Another state law qualifies this right, however, by providing that such structures must not "unreasonably obstruct navigation, or the freedom of the use of the navigable waters . . . for commerce and navigation, or for harbor purposes; . . ." *Id.* at § 33-7-51 (1987 repl. vol.).
53. *Id.* at § 33-7-53 (1987 repl. vol.). The authorization is subject to various qualifications, including the need to obtain federal and state authorities' approval of the plans for such improvements before beginning construction.

    The statute further provides in part: "If such improvement constructed or proposed shall not consist of a bridge, bridgehead, road or causeway, approach or related improvement included within this section, title shall not pass to the riparian owner . . . unless and until the riparian owner shall have obtained the approval of the county commission . . . and of the director of the state docks department and the government of Alabama. . . . ." *Ibid.*

54. Ala. Code § 9-12-22 (1987 repl. vol.). The validity of such an enactment was upheld in *State v. Harrub*, 95 Ala. 176, 10 So. 752 (1892).
55. Ala. Code § 9-12-22 (1987 repl. vol.). For the statutory definition of a "natural oyster reef," see *id.* at § 9-12-21 (1987 repl. vol.), a portion of which is quoted in note 58 *infra*. "Natural public oyster reefs in Mobile Bay and Mississippi Sound cover about 3,064 acres." ACAMP, *supra* note 4, at 138.
56. Ala. Code § 9-17-62 (1987 repl. vol.).
57. *State ex rel. Gallion v. Argiro*, 273 Ala. 44, 134 So.2d 209 (1961).
58. Ala. Code § 9-12-24. (1987 repl. vol.).

Another section in the same article of the code defines "natural oyster reef" as "not less than one acre in continuous area of any bottoms of any bay, sound, bayou, reef, inlet or any other body of salt or brackish water on which oysters grow naturally, or have grown naturally, in quantity sufficient to warrant fishing for them with hand tongs as a means of a livelihood within a period of five years. . . ." The statute provides that "in no case shall an oyster bed be declared or defined to be a natural oyster reef when such bed is located within the limits where the owners of land fronting on such waters where oysters may be grown have the right to create and have created, by artificial means. . . . culture grounds for the growth of oysters . . ." *Id.* at § 9-12-21 (1987 repl. vol.).

See text accompanying note 55 *supra* as to a companion statute under which "the owners of the land fronting on [certain waters] where oysters may be grown shall have the right to plant and gather same in the waters in front of their land . . ." *Id.* at § 9-12-22 (1987 repl. vol.).

59. 1976 Ala. Acts 534; codified at Ala. Code §§ 9-7-10 to 9-7-20 (1987 repl. vol.).
60. ACAMP, *supra* note 4, at 1, 15, 67-68; Ala. Code § 9-7-14 (1987 repl. vol.).
61. *Id.* at § 9-7-16 (1987 repl. vol.).
62. The Alabama Coastal Area Management Program document lists more than 30 existing state laws administered by other agencies that affect the coastal zone. ACAMP, *supra* note 4, at 171-188.
63. *Id.* at § 9-7-20 (1987 repl. vol.).
64. *Ibid.*

U.S. Supreme Court Rules That States May Assert Public Trust Interest in Lands Beneath Nonnavigable Tidal Waters

BY PETER H.F. GRABER, *Attorney at Law, Greenbrae, Marin County, California*

States may assert public trust rights in lands underlying waters subject to the influence of the tide, even though they are *not* navigable, as a result of an important ruling by the United States Supreme Court on February 23, 1988. The decision was handed down in a case arising in Mississippi, but is expected to have an impact in many other coastal states.

Justice Byron White, speaking for the majority, held that when Mississippi joined the Union in 1817, it took title to lands beneath waters that were influenced by the tide but were not navigable-in-fact. He was joined by Chief Justice Rehnquist and Justices Blackmun, Brennan and Marshall. Justice O'Connor, joined by Justices Scalia and Stevens, dissented. Justice Kennedy, the court's newest member, did not take part in the consideration or decision of the case.

In *Phillips Petroleum Co. v. Mississippi* (No. 86-870), 56 L.W. 4143, the nation's highest tribunal affirmed the ruling of the Mississippi Supreme Court in *Cinque Bambini Partnership v. State*, 491 So.2d 508, 510 (1986), that by virtue of becoming a state, Mississippi had acquired "fee simple title to all lands naturally subject to tidal influence, inland to today's mean high water mark. . . . " By affirming the state court's decision, the U.S. Supreme Court rejected the argument that the state had acquired title only to lands under navigable waters.

The controversy centered around 42 acres of land several miles north of the Gulf of Mexico. The land underlies a branch of Bayou Creek and 11 small drainage streams in southwestern Mississippi. The waters over the property in question are influenced by the tide, "because they are adjacent and tributary to the Jourdan River, a navigable stream flowing into the Gulf [of Mexico]. The Jourdan, in the area involved here, is affected by the ebb and flow of the tide." 56 L.W. at 4144. However, the waters over such land are not navigable.

Phillips Petroleum Co. and Cinque Bambini Partnership, which were the petitioners to the U.S. Supreme Court, traced their title to the property in dispute to prestatehood Spanish land grants. The State of Mississippi, which had issued oil and gas leases to this property, asserted that it had acquired title under the equal-footing doctrine and "held in public trust all land lying under any waters influenced by the tide, whether navigable or not." 56 L.W. at 4144.

The majority opinion rejected petitioners' argument that the original states had not claimed title to nonnavigable tidal waters, pointing out that under an 1894 U.S. Supreme Court decision, "it has been long-established that the individual States have the authority to define the limits of the lands held in public trust and to recognize private rights in such lands as they see fit." 56 L.W. at 4145.

In addition, the majority rejected petitioners' argument that "even if the [English] common law does not support their position, subsequent cases from this Court developing the *American* public trust doctrine make it clear that navigability—and not tidal influence—has become the *sine qua non* of the public trust interest in tidelands in this country." 56 L.W. at 4146. The majority pointed out that 1877 and 1892 decisions of the court had indicated that it was "recognized as the 'settled law of this country' that the lands under navigable freshwater lakes and rivers were within the public trust given the new States upon their entry into the Union. . . ." 56 L.W. at 4146.

In a footnote, the majority said that *Mann v. Tacoma Land Co.*, 153 U.S. 273 (1894), "appears to be the only previous case from this Court concerning lands beneath non-navigable, tidal waters." In that case, according to the majority, the court had "held the lands to be within the public trust,...[thus] impliedly [rejecting] the argument . . . that navigability-in-fact determined the scope of public trust tidelands." 56 L.W. at 4146 n.8.

Within the unusual context of this Mississippi property controversy, the majority opinion therefore purports to adhere to the English common law ebb-and-flow rule instead of seeking "to fashion a new test to govern the limits of public trust tidelands." 56 L.W. at 4147.

On the other hand, the dissenting opinion stated that earlier decisions had emphasized navigability as the basis for the public trust doctrine. Justice O'Connor wrote: "Our precedents explain that the public trust extends to navigable waterways because its fundamental purpose is to preserve them for common use for transportation." 56 L.W. at 4148.

The dissent argued that the public trust easement should be analogized to the federal admiralty jurisdiction. It also pointed out that by passing the Submerged Lands Act in 1953, "Congress also has evidenced its belief that the States' public trusts are limited to lands underlying navigable waters." 56 L.W. at 4149.

In a statement that may provide a hint of things to come in other states, the minority noted that "Mississippi showed no interest in the disputed land," which it leases for oil and gas purposes, "from the time it became a State until the 1970s." 56 L.W. at 4149.

As the dissent noted, the majority opinion in the *Phillips Petroleum* case would seem to encourage other states to act as New Jersey has in aggressively asserting public trust rights in land underlying nonnavigable tidal waters and in land that has been under tidal waters at any time since the Revolution. It remains to be seen how many states will try to apply the Supreme Court's latest decision in the murky area of tidelands by asserting ownership and public trust rights in land generally believed for many years to be privately held.

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The Law of the Coast in a Clamshell*

Part XXVI: The Rhode Island Approach

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IT'S UNUSUAL when someone is arrested for trying to clean up a beach, rather than littering it, but that is what happened to six people in Rhode Island in the late 1970s. Their arrest on charges of trespassing on a beachfront owner's private property triggered a state constitutional dispute.

The controversy arose because the state Constitution guarantees citizens the same "privileges of the shore" that had been assured under Rhode Island's colonial charter.[1] To decide whether the defendants were trespassing, the state Supreme Court had to determine how the legal boundary between public tidelands and private uplands should be defined and located.

In 1982 the Ocean State's highest court agreed with the private landowner, holding that the technically defined mean high-tide line constituted the boundary.[2] But the court dismissed the criminal charges on due process grounds after observing that its earlier decisions on the boundary question had been unclear.

The decision is one of the significant recent legal developments affecting the 419-mile coastline of the smallest state in the Union.[3] The Rhode Island Coastal Resources Management Program, which provides the framework for regulation of the coast, was approved by the Federal Government in 1977.[4]

TITLE TO LANDS WITHIN THE COASTAL ZONE

Under Rhode Island's Coastal Resources Management Program, the state's coastal zone includes Narrangansett Bay and extends to the seaward limit of its territorial sea; in general, it embraces lands within a 200-foot strip landward of such "shoreline features" as coastal beaches and bluffs.[5]

Lands within the coastal zone may be divided into uplands, tidelands and submerged lands.[6]

A. Uplands

In Rhode Island, as in other coastal states, private parties have title to most of the uplands immediately adjoining the shoreline.

B. Tidelands

Colonial authorities in Rhode Island, unlike their counterparts in neighboring Massachussetts, did not make any blanket grant of tide-flowed lands to the owners of the adjacent uplands.[7] Consequently, upon the signing of the Declaration of Independence, Rhode Island was, in general, vested with title to the tidelands within its borders.[8] This sovereign title was upheld in a series of early state Supreme Court decisions.[9]

C. Submerged Lands

The Submerged Lands Act of 1953[10] confirmed Rhode Island's title to submerged lands seaward to 3 geographical miles from its shoreline along Long Island and Block Island Sounds and the Atlantic Ocean. However, in 1975 the U.S. Supreme Court rejected the claim of Rhode Island and other East Coast states to the area beyond the 3-mile limit.[11]

DETERMINATION OF TIDAL BOUNDARIES

A. Upland/Tideland Boundary

In a 1912 decision, the Rhode Island Supreme Court used the words "ordinary high-water mark" — a legal term that originated at common law in England — to describe the boundary between privately owned uplands and the state's tidelands.[12] Seventy years later, in 1982, the court defined the boundary more specifically in *State* v. *Ibbison*.[13]

Interestingly, the occasion for clarifying the boundary definition arose in a criminal case in which the defendants were charged with criminal trespass under a municipal code prohibiting a person from knowingly

* This is the 26th in a series of articles presenting a capsule version of the contemporary law of the coast for non-attorneys. The article briefly summarizes certain aspects of the constitutional, statutory and case law of the State of Rhode Island concerning the coastal zone. Space limitations preclude an in-depth analysis of many of these topics or any discussion of related matters. The views expressed in this and the other articles in the series do not necessarily reflect those of the author's former employer, the Office of the Attorney General, State of California, or any other agency of the State of California. © 1989 by Peter H.F. Graber. The author also asserts copyright protection for the first 25 articles in this series.

entering upon the land of another without having been requested or invited to do so by the landowner or occupant. The defendants had been engaged in a beach cleanup operation in Westerly, a community along Block Island Sound near the Connecticut border. They were stopped by Wilfred Kay, a littoral property owner, and a policeman. As the court summarized the facts:

> "Kay, believing his private property extended to the *mean-high-water line*, had staked out that line previously. He informed defendants that they were not permitted to cross the landward side of it. The defendants, on the other hand, believed that their right to traverse the shore extended to the *high-water mark*. This line was defined by defendants . . . as a visible line on the shore indicated by the reach of an average high tide and further indicated by drifts and seaweed along the shore. It has been stipulated by the parties that defendants had crossed the mean-high-tide line but were below the high-water mark at the time of their arrest. Also, at the time of the arrest, the mean-high-tide line was under water."[14]

The dispute in the *Ibbison* case raised a state constitutional issue because the Rhode Island Constitution provides that the people "shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have heretofore been entitled under the [colonial] charter and usages of this state."[15] As the court phrased the legal issue: "To what point does the shore extend on its landward boundary?"[16]

In resolving that question, the state's highest tribunal cited Rhode Island's common-law heritage[17] and the U.S. Supreme Court's landmark 1935 decision in the *Borax* case.[18] The state court said "the only permissible action for us to take is to affix the boundary as was done at common law,"[19] which was construed in *Borax* as the line of mean high tide. This means that the boundary is located at the intersection of the datum of mean high water, as determined over a 19-year period, with the shore.

The Rhode Island court recognized that the mean high-tide line "is not readily identifiable by the casual observer," but stated that the line "represents the point that can be determined scientifically with the greatest certainty."[20] The court also said that its decision "best balances the interests between littoral owners and all people of the state."[21]

Although the *Ibbison* decision established the mean high-tide line as the upland/tideland boundary, thereby recognizing the view of the littoral property owner involved in the case, the state Supreme Court affirmed the dismissals of the criminal charges on due process grounds. The court said that "no man shall be held criminally responsible for conduct that he could not reasonably understand to be proscribed," and that there had been a "lack of clarity in early decisions of this court regarding whether the landward boundary of the shoreline was to be computed as a mean or as an absolute high-water mark."[22]

Admonished the court: "In the future, any municipality that intends to impose criminal penalties for trespass on waterfront property above the mean-high-tide line must prove beyond reasonable doubt that the defendant knew the location of the boundary line and intentionally trespassed across it."[23]

B. Legal Effect of Physical Changes in the Location of the Shoreline

Rhode Island's Supreme Court does not appear to have been confronted with a case calling for its decision on whether the upland/tideland boundary moves with accretion and erosion. However, several decisions indicate that if such a case arose, the court would follow the usual common-law rule under which littoral owners are entitled to accreted lands but must assume the risk of losing title by erosion.[24]

RHODE ISLAND'S PUBLIC TRUST DOCTRINE

The public trust doctrine — the concept that the public may use tidal waters irrespective of whether the underlying lands are publicly or privately owned — has been recognized in the Rhode Island Constitution and in case law. A provision in the state Constitution, which was involved in the previously discussed *Ibbison* case, states that "[t]he people shall continue to enjoy and freely exercise all the rights of fishery, and the privileges of the shore, to which they have been heretofore entitled under the [colonial] charter and usages of this state."[25]

In 1941, in *Jackvony* v. *Powel*,[26] the state Supreme Court ruled that the public's right to passage along the shore, at least for certain purposes, is one of the "privileges of the shore" protected by this constitutional provision. The case arose when a beach commission of the City of Newport stated its intention to erect a fence perpendicular to the shoreline along the boundary between the city and the adjoining town.

The commissioners stated that the purpose of the fence, which was planned to extend between the lines of mean high and mean low tide, was " '[t]o keep nonresidents from using the [city's] beach for nothing and thus protect Newport taxpayers.' "[27] The Supreme Court said that the legislation under which the commissioners planned to act, if valid, "could prevent any person . . . from passing along any part of the shore between Euston's Beach and the line of mean low tide . . . for any purpose whatever, be it for fishing, bathing, boating, getting seaweed or sand, or for exercise [of] any other purpose."[28] After defining the right of passage along the shore as one of the "privileges of the shore" protected by the state Constitution, the court held that

the legislation violated the constitutional provision.[29]

PUBLIC ACCESS RIGHTS

Although the *Jackvony* decision upheld the public passage *along* the shore, it did not address the question of access from the uplands *to* the sea. A legal scholar who analyzed that decision said the "[t]he right of access would seem to be a logical corollary of the right of passage," but that "historical evidence, which the Rhode Island courts have relied upon heavily in the past," indicates the contrary.[30] He argued that the public trust doctrine, used in conjunction with other legal concepts, such as dedication, prescription or custom, "could prove an effective tool in an effort to gain greater public access to the shoreline."[31]

Implied dedication of a beach to a town was upheld in a 1932 state Supreme Court decision.[32] A private party claimed ownership under a chain of title dating back to 1849,[33] but there was evidence that for many years, the town and nearby farmers had carted sand and gravel from the beach and the townspeople had used the beach for hunting, fishing and bathing.[34] The court, observing that such use was open, notorious and uninterrupted for a longer period than required to obtain title by adverse user, stated that this use raised a presumption of dedication.[35]

PRIVATE LITTORAL RIGHTS

Private owners of uplands in Rhode Island have the common-law right of access to the adjoining tide and submerged lands.[36] As a result, courts have upheld their right to build wharves, subject to governmental regulation assuring protection of the public right of navigation.

For example, in a 1960 case,[37] an oil refining company obtained federal and state approval to build a pier in Narragansett Bay. The state Supreme Court rejected an argument that state officials' approval of the proposed pier, under a state law,[38] was tantamount to the state's giving away the soil under the tidelands held in trust. The court said that because the authorities had determined that the proposed pier would not interfere with the public rights in the waters, the company could exercise its right to wharf out to obtain access to the sea.

Historically, littoral owners in Rhode Island were allowed to extend their property waterward by filling the adjacent tide-flowed lands.[39] After the Harbor Line Act was passed in 1873, the state Supreme Court recognized the right of the owners to fill out to the lines established under that law.[40] As the court put it:

> ". . . A harbor line is in fact what it purports to be, the line of a harbor. It marks the boundary of a certain part of the public waters which is reserved for a harbor. The part so reserved is to be protected from encroachments. The rest is to be left to be filled and occupied by the riparian proprietors. Its establishment is equivalent to a legislative declaration that navigation will not be straitened or obstructed by any such filling out."[41]

As with wharfing out, filling of tidal flats now must be approved by the state's director of public works.[42]

LEASING AND REGULATION OF COASTAL ZONE LANDS AND WATERS

A. Leasing

Lands beneath the state's coastal waters may be leased to applicants who have been granted aquaculture permits.[43]

B. Regulatory Functions

The Coastal Resources Management Council, created in 1971, is the state entity primarily responsible for management of land use in and near coastal waters.[44] Constitutionality of the statute establishing the council was upheld by the state Supreme Court in 1981.[45] In that portion of the coastal zone waterward of the mean high-water mark, the council has direct authority over all activities; landward of that line, it has authority over certain uses and activities if "there is a reasonable probability of conflict with [the council's] program for resources management or damage to the coastal environment."[46]

The council is empowered to issue or deny permits for dredging, filling or any other alteration of coastal wetlands, and to "[g]rant licenses, permits and easements for the use of coastal resources which are held in trust by the state for all its citizens."[47]

Use of the lands and waters within Rhode Island's coastal zone is subject to various other regulatory programs. Not all of these have been upheld by the courts. In one case, for example, the state Supreme Court ruled that a local zoning ordinance designed to protect barrier beaches was so restrictive that it deprived the landowner of all beneficial use of the property and thus amounted to an unconstitutional taking of private property.[48]

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REFERENCES

[1] R.I. Const. art I, § 17. See *infra* notes 15 and 25 and accompanying text.

[2] *State* v. *Ibbison*, 448 A.2d 728 (R.I. 1982). For a discussion of this case, see "Upland/Tideland Boundary" under "Determination of Tidal Boundaries," *infra*.

[3] *Rhode Island Coastal Resources Management Program* [herein cited as RICRMP] 1 (1977). The original program document was amended in June 1983.

[4] The program was prepared pursuant to the federal Coastal Zone Management Act of 1972, 16 U.S.C. § 1451 *et seq.*

[5] RICRMP, *supra* note 3, at 20-21

[6] This classification is used for convenience and consistency with other articles in this series.

[7] For a brief discussion of the grants in Massachussetts under the colonial ordinance of 1647, see *Shore and Beach*, Vol. 50, No. 1, January 1982, pp. 13-14. An early decision indicates that the Massachussetts rule applies to portions of Rhode Island's shore that were ceded from Massachussetts. *Allen* v. *Allen* 19 R.I. 114, 32 A. 166 (1895). However, in a later case, *Narragansett Real Estate Co.* v. *Mackenzie*, 34 R.I. 103, 82 A. 804 (1912), it was held that the Massachussetts ordinance was not applicable in Rhode Island.

[8] *Martin* v. *Waddell*, 41 U.S. (16 Pet.) 367, 408 (1842).

[9] See, *e.g.*, *Walsh* v. *Hopkins*, 22 R.I. 418 (1901); *Allen* v. *Allen*, *supra*, 19 R.I. 115, 32 A. 166; *Bailey* v. *Burges*, 11 R.I. 330 (1876).

[10] 67 Stat. 29; codified at 43 U.S.C. § 1301 *et seq.*

[11] *United States* v. *Maine*, 420 U.S. 515, 517-518 (1975).

[12] *Narragansett Real Estate Co.* v. *Mackenzie*, *supra*, 34 R.I. 103, 112, 82 A. 804, 806. In other cases, the court referred to the shore as "land below high-water mark," *Armour & Co.* v. *City of Newport*, 43 R.I. 211, 213, 110 A. 804, 806 (1920), and "the space between high and low-water mark," *Clark* v. *Peckham*, 10 R.I. 35, 38 (1871).

[13] 448 A.2d 728 (R.I. 1982).

[14] *Id.* at 729-730 (emphasis added).

[15] R.I. Const. art. I, § 17, as amended by art. XXXVII, §§ 1-2. See note 25 *infra*.

[16] 448 A.2d at 729

[17] *Id.* at 730. The court discussed *Allen* v. *Allen*, *supra*, 19 R.I. 114, 115, 32 A. 166, quoting that case as saying that "[t]he State holds the legal fee of all lands below high water mark as at common law."

[18] For a discussion of *Borax, Ltd.* v. *City of Los Angeles*, see *Shore and Beach*, Vol. 48, No. 4, October 1980, pp. 17-18, and Vol. 49, No. 2, April 1981, pp. 21-22.

[19] 448 A. 2d at 730.

[20] *Id.* at 732.

[21] *Ibid.*

[22] 448 A.2d at 733.

[23] *Ibid.*

[24] In *Carr* v. *Carpenter*, 22 R.I. 528, 530-531, 46 A. 805, 806 (1901), the Rhode Island court cited a New York case, *Emans* v. *Turnbull*. 2 Johns. 313 (1807), which in turn had relied on early English legal authorities as recognizing the private owners' right to gradual, imperceptible accretion.

[25] R.I. Const. art. I, § 17. The Constitution was originally ratified in 1843. The state's responsibility to protect the public interest was set forth in the following language added to the Constitution in 1970:

> ". . . and [the people] shall be secure in their rights to the use and enjoyment of the natural resources of the state with due regard for the preservation of their value; and it shall be the duty of the general assembly to provide for the conservation of the air, land, water, plant, animal, mineral and other natural resources of the state, and to adopt all means necessary and proper by law to protect the natural environment of the people of the state by providing for the preservation, regeneration and restoration of the natural environment of the state." R.I. Const. art XXXVII, § 1.

[26] 67 R.I. 218, 21 A.2d 554 (1941).

[27] *Id.* at 220, 21 A.2d at 555.

[28] *Id.* at 227, 21 A.2d at 558.

[29] *Id.* at 228-229, 21 A.2d at 558. In addition to the right of passage along the shore, the court referred to these public rights in the tidelands as recognized under the common law: "fishing from the shore, taking seaweed and driftstuff therefrom, [and] going therefrom into the sea for bathing." *Id.* at 223, 21 A.2d at 556.

[30] Nixon, *Public Access to the Shoreline: The Rhode Island Example*, 4 Coastal Zone Management J. 65, 67 (1978).

[31] *Id.* at 68. The state Supreme Court recently upheld the Coastal Resources Management Council's designation of a public right of way across private lands to state tidal waters. *Sartor* v. *Coastal Res. Mgt. Council*, No. 86-106 (May 24, 1988).

[32] *Talbot* v. *Town of Little Compton*, 52 R.I. 280, 160 A. 466 (1932).

[33] The private claimant to the beach property also presented evidence that a fence had been briefly erected in 1865, and that she occasionally had cleaned up rubbish on the beach and used it for bathing. *Id.* 285, 160 A. at 468.

[34] *Id.* at 285-286, 160 A. at 468.

[35] *Id.* at 288, 160 A. at 469. The court said: "[W]here there is a dedication, express or implied, of common lands the municipality holds the title to the land in trust for the inhabitants." *Ibid.*

[36] *Carr* v. *Carpenter*, *supra*, 22 R.I. 528.

[37] *Nugent* v. *Vallone*, 91 R.I. 145, 161 A.2d 802 (1960).

[38] The law provides that plans for proposed wharves and other structures in or over public tidewaters must be approved by the state director of public works. R.I. Gen. Laws § 46-6-2. The law, however, contains a proviso that "nothing herein contained shall be construed to impair the rights of any riparian proprietors to erect wharves authorized to be erected under any of the laws establishing harbor lines within the state, or otherwise by the general assembly."

[39] For a general discussion of harbor lines, see Nixon, *Harborlines, Underwater Lots and Development*, 33 R.I. Bar J. 8 (Oct. 1984).

[40] *Engs* v. *Peckham*. 11 R.I. 210 (1875).

[41] *Id.* at 224.

[42] R.I. Gen. Laws § 46-6-2.

[43] *Id.*, § 20-10-6.

[44] *Id.*, § 46-23-1 *et seq.*; RICRMP, *supra* note 3 at 250-252.

[45] *Milardo* v. *Coastal Res. Mgt. Council*, 434 A.2d 266 (R.I. 1981). See also *Santini* v. *Lyons*, 448 A.2d 124 (R.I. 1982).

[46] R.I. Gen. Laws § 46-23-6.

[47] *Ibid.*

[48] *Annicelli* v. *Town of South Kingstown*, 463 A.2d 133 (R.I. 1983). In this case, an amendment to the zoning ordinance designated segments of the town's shoreline "High Flood Danger" districts. The classification effectively precluded the landowner in question from building a single-family dwelling in an area in which there were already 30 such structures.