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BEACH ACCESS: PUBLIC RIGHT OR PUBLIC PRIVILEGE

MARINE AFFAIRS SEMINAR

DEPARTMENT OF MARINE AFFAIRS

BY

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MASTER OF MARINE AFFAIRS

UNIV. OF RHODE ISLAND
Introduction

Virtually all Americans associate bodies of water with recreation. They swim, fish, surf, ski, sail, skin-dive, snorkel and paddle in water. Some photograph or paint it, others just look at it. This omnipresent interest in the water is typified by the activity known as "going to the beach". As a boy in suburban Boston I "went to the beach" almost daily in the summer, but the beach was on a small fresh water pond within walking distance of my home. The special treat was on those occasions when I could go to the "real" beach, on the ocean. Sometimes getting to the ocean involved a long ride on public transportation, using successively a street car, a rapid transit train, a ferry, and another rapid transit train, and sometimes it was as simple as a two hour ride in my father's old car, but when we got there, the beach was ours. We could use it as we pleased, because at that time nearly every beach was a public beach. Such is no longer the case.

Excluding Alaska and Hawaii, fifty-four percent of the U.S. population lives within the fifty mile wide coastal strip that comprises only eight percent of the total U.S. land area. Along that same finite coastline are power plants, refineries, tank farms, petrochemical plants, docks, warehouses, marinas, boat dealers, sewage treatment plants, motels, hotels, summer cottages, year round homes and condominiums. In our free society most of the enterprises which occupy portions of the shoreline have valid reasons for being there, either historically or because the land-sea interface is the functional reason for the existence of that enterprise.

Two plus decades of prosperity have resulted in more leisure time for everyone, adequate money to enjoy that leisure, and an unprecedented spate of roadbuilding which created thousands of miles of high speed high-
ways which either (1) permit inland residents to stream to the coastal beaches on day trips or spend vacations in the many rental properties available, or (2) permit inland residents to purchase second homes on or near the shore, or (3) permit people to live in coastal areas and commute to their jobs wherever they may be. The resultant demand pressure on the nation's public coastal beaches is described with wit and insight in the following quotation:

Once again we are in the season of the summer solstice, the high season in the temperate zone, when all mankind heads for the beach. Pale flesh and desiccated spirits yearn to be rebaptised. In this ecumenical rite we are a nation of fundamentalists: nothing less than total immersion in salt water will redeem us.

Inevitably, however, the pilgrimage turns into an ordeal. The mass migration to the beach gets stalled in a summer-long traffic jam that hardens into an unmoving mass of hot metal and boiling frustration on the weekends. There are simply too many people heading for too little beach at the same time.

On holidays, many spend the day oozing along the coast from one public beach to the next in a vain search for a parking place. The lucky ones end up herded together on the sand like seals in a rookery, oiled and broiling in indecent proximity to the whole population they presumably came so far to get away from.

More and more, increasingly leisured and mobile Americans seem to expect access to the beach as something corollary to a constitutional right. But, with 50 percent of us living within fifty miles of a coast, the public beaches are already inadequate to the demand. Even so, the government further incites the public lust for the seashore by building better highways and by tampering with traditional holidays to prolong summer weekends.

In the face of this growing demand-- indeed, largely in response to it-- the supply of beach open to the public is shrinking even further. Private beach owners and municipalities endowed with town beaches-- even those that have always been permissive about peaceable trespass-- are in arms against an imminent invasion. At best, they foresee masses of alien refugees from the urban prison. At worst, they fear vagrant hordes of freeloaders, long-haired barbarians who will smoke pot and fornicate on the sand without even paying property taxes.

So everywhere more and more under-populated beachfront is posted against trespass and patrolled by intolerant gendarmes. Landlords extend walls or fences across their dry-sand beaches to the waterline. Elaborate security systems restrict municipal beaches to town residents: official
windshield stickers are required at parking lots, while nearby roadside parking is prohibited. More liberal towns charge non-residents parking fees as high as $15 for a single visit. Pedestrian access to the beach is secured by plastic-laminated ID cards or numbered dog tags or bracelets. "Our facilities are already overcrowded and overutilized," complained an official of one Long Island county last summer. "We have all we can do to preserve the best facilities for our own residents."

This annual summer impasse is developing into a confrontation between the public and the proprietors, who are determined to hold their private beaches for themselves. It is apparent from the above that "going to the beach" in our affluent and complex society is no longer the simplistic ritual that it was in an earlier, poorer time. All the coastal states of the U.S., particularly the more populous, have been and are struggling with the problem of obtaining public access to the nation's coastal beaches. There is a large volume of litigation and legislation devoted wholly or in part to mitigating the problem.

It is the intent of this paper to examine some of the landmark court cases on the subject throughout the U.S. and also Federal legislation which has been proposed or enacted. Because the issue joined is so basic, i.e., public rights to use the beach vs. private property rights in that same beach, emotions run strong. Therefore our examination would be incomplete without a microscopic look at some individual coastal communities which have been or will be affected by the efforts of higher levels of government to attain the goal of improved public access to the beach. Lastly, from the information developed, it is hoped that some worthwhile suggestions may evolve in the areas of legislation or implementation.
Public Rights to the Shore of the Sea

United States jurisprudence has as its foundation English Common Law, and it is to that Common Law which we must look for the public rights at the shore.

Sovereign authority over land, the *jus privatum* or private title was historically vested in the Crown. After the Norman conquest of England, the King extended this authority to the sea and the lands beneath it. Most private land titles originated as a grant from the Crown and many of these grants included title or other exclusive rights to some portion of the seashore. By the time of the Magna Carta private ownership along the coast had grown to the point where it interfered with commercial activities in the nation's waterways. This situation generated a gradual expansion of public rights in tidelands and navigable waters leading ultimately to the theory of *jus publicum*. This doctrine, as it applied to the coastal area, stated that the Crown held "in trust" for the common use of the general public for fishing and navigation, the foreshore (that area of wetted sand between high and low tide lines) and the waters of the sea. These public rights existed even in those cases where proprietary title had been granted to individual subjects.

This was the status of English law at the time of the American Revolution. The thirteen original colonies, as sovereign states, succeeded to both proprietary and trust interests formerly held by the King. They retained these rights upon formation of the United States, subject to any rights delegated to the Federal government by the Constitution. Subsequently any state which joined the Union
attained these same rights under the "equal footing" provision of the U.S. Constitution. In a series of cases beginning in 1842 the U.S. Supreme Court confirmed state ownership of the tidelands and submerged lands beneath navigable waters and established the fact that these lands were to be held in trust for the public.

Thus, early American law held that each state had title to the tidelands, the navigable waters and the land beneath, within its respective boundaries, subject to a public trust. The title to upland areas was free of that public trust.

From a legal standpoint there still remain three questions.

1. What are the limits of state ownership/trusteeship?
2. How do we define "navigable waters"?
3. What is the scope of the public rights?

In 1935 the US Supreme Court in Borax Consolidated Ltd v Los Angeles, 296 U.S. 10 ruled that the common law established the landward boundary of private littoral ownership and the state's public trust area as the line of mean high tides over a long period of time. This remains the Federal test. A number of states (including Massachusetts which we will discuss in more detail at a later point) have chosen to establish the low-water mark as the landward boundary in question. Other states have in some cases extended the boundary landward above the high water mark.

The seaward limit of the state's jurisdiction has been the subject of much litigation and legislation and is yet to be decided. In a series of cases between 1947 and 1950, the so-called Tidelands Cases, the US Supreme Court established coastal states seaward boundaries as the low-water mark. The controversy which arose because of these
decisions caused Congress to pass the Submerged Lands Act of 1953 which established state title to the seabed, the resources thereon and the waters above, out to the three mile limit, except in the case of Texas and the Gulf Coast of Florida, where a limit of three marine leagues (approx. 10.5 statute miles) was established. In subsequent litigation it was established that the baseline from which each state could measure the three mile or three league width was that line established under the terms of the U.N. Convention of the Territorial Sea and the Contiguous Zone (Geneva 1958)\(^3\).

The waters and submerged lands lying on the landward side of the territorial baseline, so-called "internal" waters are also well covered by legal rulings. By common law, title depends on whether or not these waters are "navigable". The Daniel Ball Case\(^4\) defines navigable waters as those which "are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water". This test applies to bed title, since the beds of navigable waters passed to the states upon their admission to the Union.

Thus it is established that the public has rights to the tidelands, and submerged lands beneath internal waters and those beneath the existing territorial sea, through either state ownership or trusteeship.\(^5\)

In answering the question regarding the specific rights held by the public in the tidelands, submerged lands and navigable waters, it is necessary to return to English Common Law. The oldest uncontested right of the public in the trust doctrine is that of the use of these lands and waters for navigation. This right has been unchallenged and
enforced from ancient Roman times, and public easements have been upheld for closely allied purposes such as anchoring. In the 1821 case of Blundell v. Catterall the English public's right to the tidelands was limited to navigation and fishing and bathing was specifically eliminated. The bathing issue was again considered in 1904 in Brinkman v. Matley and the original decision was allowed to stand.

Following this general practice, American courts have held that navigation, commerce and fishing are the basic rights protected under the public trust doctrine. Even in states such as Massachusetts, where littoral owners held title to the low water mark, the Great Colony Ordinance of 1647 reserved for the public the rights to navigation, fishing and fowling in the tidelands. While a few state legislatures and courts have gone beyond these basic rights to add some public recreation rights, in general, the public rights are limited to the old pursuits necessary for sustenance, i.e. fishing, fowling and navigation.

Because people need access to the dry sand area above the high tide line to properly enjoy the use of the sea shore for recreation, some other mechanisms, legal or legislative, are required to satisfy the growing pressure on the inadequate supply of shoreline suitable for recreational use. The next section will deal with such actions which have taken place over the past several years.

II Common Law Principles and Legal Action

There are four long established common law principles by which the public may obtain rights to private property. These doctrines are: implied dedication, customary rights, prescription and public
trust. Because of the pressure of growing populations on existing public beaches, litigation using these common law doctrines has occurred in a number of coastal states. As a result, a body of case law has developed which is worthy of examination. Where applicable, these decisions provide useful mechanisms for securing public rights to the beach.

A Implied dedication

The doctrine of implied dedication is defined by McKeon as follows:

Common law implied dedication comprises a system of judicially created doctrines governing the donation of land to public use. No formalities are necessary; conduct showing intent by the owner to dedicate land and an acceptance by the public completes the dedication. Both intent to dedicate and acceptance may be implied from public use. An owner's inaction may be taken as evidence of acquiescence in public use and thus of his intent to donate the land. The public use itself may be taken as evidence of acceptance.

Once the implicit offer has been accepted, the owner cannot revoke his dedication. The public cannot lose its rights through non-use or adverse possession. The public normally takes only an easement by implied dedication, with the owner retaining the underlying fee; a few courts, however, have found dedication of a fee simple title in circumstances indicating an intent to give such a title.

In 1964 in the Texas case of Seaway Co. v. Attorney General9 implied dedication was first used to justify the public's continuing right to use a beach which had seen continuous public use for over 100 years. In this case the littoral owners erected barriers preventing access to the beach in 1958. Testimony established the fact the beach had been used as a stagecoach route and subsequently for public recreation for many years.10

In 1970 the California Supreme Court unanimously wrote a single decision in two similar beach-access cases. In the first case, Dietz v. King,11 Dietz, representing public users in a class action, sought to prevent the King family from closing a road which provided sole
access to a beach. The road had been used by the public for over 100 years until the Kings bought the land in 1959 and made occasional attempts to close it.

In the second case, Gion v. City of Santa Cruz, a coastal property owner brought a quiet title action to determine his right to develop his three parcels of property despite restrictions placed on the lots by the city. The city had exercised proprietary control over the area and had developed it for recreation because since before 1900 the public had used it for all types of beach activities.

The court said that public use could create common-law implied dedication either by showing the owner's acquiescence, and thus his intent to dedicate or by establishing adverse use for the five year period which is prescribed by California law in such cases. The court further defined "adverse". The use is adverse if the public believed it had the right to use the area for recreation without asking anyone's permission.

Common law implied dedication has also been used to secure beach rights for the public at large as opposed to specific segments of the public. In Gerwitz v. City of Long Beach, the court voided a 1971 ordinance which restricted the use of a municipally owned beach to city residents. It was found that the public at large had used the beach for over thirty years. The city had during that period improved and maintained the beach and collected use fees from the public at large. This constitutes complete and irrevocable intent to dedicate and the public's use provides the necessary acceptance which completes the dedication.
B Customary Rights

The common law doctrine of customary rights holds that continued observance of a custom or a practice may under certain circumstances accord that custom the force of law. The use must be continuous, reasonable and peaceful, and from time immemorial; in English common law, "Since the memory of man runneth not to the contrary". The practice in English courts had been to interpret the phrase as meaning that the custom existed prior to the coronation of Richard I in 1189.

To date the important application of this doctrine in beach access is the case of State ex rel. Thornton v. Hay. Here, a motel owner fenced off, so as to exclude the public, a section of beach which had seen public use for more than 60 years. The case was initially a test of an Oregon statute which claimed public rights to the beaches seaward of the vegetation line. The lower court ruled for the public on the basis of implied dedication, avoiding the testing of the constitutionality of the statute. On appeal, the Oregon Supreme Court affirmed the lower courts decision but on other grounds. Again the court avoided the test of the constitutionality of the statute. The common law doctrine of customery rights was used as a basis for the decision. The reasoning used was that the 60 plus year custom of use predated the official history of Oregon's statehood and therefore met the "from time immemorial" test.

C Prescription

Prescription is another common law doctrine by which rights in real property can be acquired and in fact is the principal legal theory governing the creation of public easements in privately owned land. The doctrine requires continuous, open, and adverse use of the land in question,
without the owner's permission. Most states have statutes which authorize prescription and frequently the period over which adverse use must take place is specified in the statute. Some authorities suggest that prescription is not particularly suitable for use in beach cases, because of the requirement for uninterrupted adverse use. In most U.S. climates it is difficult to think of the pattern of beach use as uninterrupted.

In any event, prescription was applied in the Florida case, City of Daytona Beach v. Tony-Rama, Inc. The defendant corporation owned a recreational pier which extended into the ocean from that property. The corporation was granted a building permit for an observation tower on the soft sand area adjacent to the pier. A group of citizens had won a judgement in their favor, claiming the public had acquired a prescriptive recreational easement in the sand area upon which construction was to take place. Tony-Rama Inc. appealed to overturn the judgement.

The court found that the public had, in fact, continually and uninterrupted used the soft sand area for recreation for over twenty years; that the public's use was adverse under an apparent claim of right and without interference of anyone claiming to be the owner; and that the city had maintained and policed the area. The court found for the City of Daytona Beach and further ruled that the city was empowered to exercise supervisory jurisdiction over the beach and to authorize construction of any facilities not inconsistent with the nature of the public easement.
Both the Texas and Oregon statutes which established public rights on the states beaches seaward of the vegetation line were based on the prescription theory. But to date in neither state have the courts seen fit to use prescription as a basis for their decisions involving public access to the beaches, relying instead on other common law doctrines. 20

D. The Public Trust

As previously noted, the public trust doctrine, which has its foundation in the *jus publicum* of English common law, is concerned primarily with the public's rights in the foreshore, the navigable waters and the lands thereunder. There is no broad trusteeship in the dry sand or upland areas, and in the case of a number of the original colonies, proprietary rights extend in many cases to the low water mark.

However as American practice in the environmental field has developed, the public trust doctrine has come more frequently in use, as a tool to protect parks and beaches that have been purchased by some governmental unit for public recreational use. This kind of trust property is generally characterized by a three fold limitation on the government's authority as trustee: (1) the property cannot be sold; (2) the property must be maintained for particular types of public uses impressed with the trust; and (3), the property must be available for use by the general public.

Thus in the Gerwitz case previously cited, while the court ruled that the public at large had secured its beach use rights through implied dedication, the court used the doctrine of the public trust in its judgement that the City of Long Beach, as trustee, must protect
the rights of all the public, not just the residents of the city. In a New Jersey case, Borough of Neptune City v. Borough of Avon-by-the-Sea, non-residents of Avon-by-the-Sea were charged higher parking fees than residents. The stated purpose was to defray a $50,000 municipal deficit caused by non-residential use of the municipal beach. A lower court ruled that the discriminatory fees were legal, but the decision was reversed by the New Jersey Supreme Court which ruled that the Avon beach had been dedicated for recreational use and that "the public trust doctrine dictates that the beach and the ocean waters must be open to all on equal terms and without preference, and that any contrary state or municipal action is impermissible".

E Commentary

These, then, are the common law tools which may be of value in securing public rights in the nation's beaches. While useful, they have severe limitations which must be noted.

First, the conditions must be right. In general, there must be continuous adverse use of long standing by the general public before any of these doctrines apply. In the older, more extensively developed states, it is difficult to find stretches of useable beach where such conditions exist. Wealthy families have long owned much of the desirable beach property and more of it has been cut up into small parcels on which are built small cottages. Next, it is almost mandatory that a strongly supportive government, either municipal, county, or state, pick up the cudgel for the general public in the courts. For example, both the Texas and Oregon legislatures had passed "open beaches" statutes, thus laying the prestige of the state government on the line for all,
including the courts, to see. Many states have no firm policy on public access to the beaches either due to lethargy, lack of public demand, or because it is politically inexpedient to have a firm policy on such a contentious issue.

Thus, interesting as the common law approach may be, the prospects of this being the ultimate solution to the problem of public beach access are very dim. At best these ancient doctrines may be helpful once a planned approach has been decided upon and implementation begun.

III The National Open Beaches Bill

The National Open Beaches Bill was an attempt by Texas Representative Robert Eckhardt, the author of the Texas Open Beaches Act, to strengthen the hand of those states interested in using the common law approach to acquire public rights in the beaches. The bill was introduced as an amendment to Public Law 90-454; 82 Stat. 625; 16 U.S.C. 1221 et seq., which authorized the Department of the Interior, in cooperation with the states, to conduct an inventory and study of the nation's estuaries and their natural resources.

In Section 202 "the beaches of the United States are impressed with a national interest and . . . the public shall have free and unrestricted right to use them as a common" to such degree as that use is consistent with the constitutional property rights of the littoral owners. Section 205 established the following rules of evidence:

"(1) a showing that the area is a beach shall be prima facie evidence that the title of the littoral owner does not include the right to prevent the public from using the area as a common; (2) a showing that the area is a beach shall be prima facie evidence that there has been imposed upon the beach a prescriptive right to use it as a common."
In delimiting the beach area, the bill uses "the area along the shore of the sea affected by wave action" and more specifically, the area seaward of the vegetation line on a typical sandy beach, or 200 ft. landward of the mean high tide line where vegetation is lacking.

The Department of Justice, in its letter of comment dated October 25, 1973 took strong issue with the provisions of the bill and recommended against its passage. "We cannot agree that the public has a free and unrestricted right to use the entire area the bill defines as beach as a common. Generally speaking, owners of littoral land do have the right to enclose it seaward as far as the line of mean high water even where there has been substantial public use. (Citations omitted) While the bills indicate the declared intention of Congress to exercise the full reach of its constitutional power to affirm that beaches are impressed with a national interest and to afford the public a free and unrestricted right to use them, it is by no means clear that above the high water line, Congress has any power at all over the subject matter."

Justice further took issue with some of the wording used to define the area subject to wave action, rightfully pointing out that the vagueness of the definition would likely lead to endless litigation. Other purely legal as well as constitutional objections were raised by the Department of Justice. In fact in a careful reading of the letter of comment it is impossible to find a single favorable comment. The bill was also commented upon as unnecessary or undesirable for a variety of reasons by the following Federal agencies: the Council on Environmental Quality of the Executive Office of the President, the Department
of the Army, the Department of the Interior, and the Department of Transportation.

For whatever reason, the National Open Beaches Bill in the form noted above has not been enacted into law. However, Representative Eckhardt, undaunted by all the adverse commentary on his previous bill has introduced a new National Open Beaches Bill. The bill is essentially unchanged except that it is now offered, more logically, as an amendment to the Coastal Zone Management Act of 1972.

It seems to this writer unlikely and probably undesirable that a bill such as this should pass in any form, and especially undesirable as an amendment to the Coastal Zone Management Act of 1972, (the Act) the stated purpose of which is to encourage and assist the individual states in the development of the states own coastal zone management program in line with Federal guidelines. The Act, admittedly, does not mention the word "beach" and only uses the word "recreation" in its very broadest meaning two or three times. But the sense of the Act is that recreation is an essential element to be considered in the state's coastal zone management plan and this is really all it should say. Each state has its own beach problems and is really the best judge of how to handle its beach problems in relation to its other management problems. Some states, e.g. California, have miles of desirable beach enclosed in Federal military reservations from which the public is excluded. In many of the older Atlantic coastal states, the littoral owner has property rights to the low-water mark and in addition has for years effectively excluded the public from his beach, so the common law doctrines discussed previously are useless.
Some states may decide that politically and economically the most suitable action the state can take with regard to public access to the beaches is none at all. The literature on the subject of beach access seems generally to pay lip-service to the property rights of the littoral owner or, worse yet, expends its effort in explaining legal means for depriving him of those rights. And like it or not, the essence of the whole beach access problem is the conflict between private property rights and the "rights" of the public to "go to the beach".

The scene of the action is at the lowest level of government; in New England, the town or city. Even when the state is acquiring beach property, by one means or another, the stresses resulting from the above conflict are felt most in the municipality. To better understand these stresses, we have elected to examine the current situation in a number of communities of varying size in Massachusetts and Rhode Island. The method used in selecting these communities was completely unscientific and will be explained in the next section. Thus any findings can have no statistical value and the interviews really were intended only to broaden the writer's and the reader's comprehension of the dimensions of the problem. Hopefully, this additional illumination will make some contribution toward a solution or a combination of solutions.

IV The Real World

The writer's need for first-hand on-the-scene examination of the beach access problem has been noted. How to go about such an examination presented a problem. The random, "What if?" approach seemed un-productive. Then, fortuitously, we discovered the New England River Basins Commission and its Southeastern New England (SENE) study.
The New England River Basins Commission (NERBC) by its own definition is "a federal-state planning partnership composed of members from the six New England states and the State of New York, ten federal agencies, and six interstate and regional agencies. The Commission's Chairman is appointed by the President of the United States, and its Vice Chairman is a state member elected by the other state members." NERBC was established in accordance with the provisions of the federal Water Resources Planning Act by Executive Order 11371 on September 6, 1967. Its region encompasses the six New England states, the Housatonic River basin in New York, and the North Shore of Long Island.

The Southeastern New England (SENSE) Water and Related Land Resources Study was authorized by Congress and funded in 1971 in response to the increasingly troublesome pressures the region's rapid urbanization was exerting on its rich and varied natural resources. The SENSE Study has two principal goals:

"To identify and recommend actions to be taken by all levels of government and by private interests to secure for the people of the region the full range of uses and benefits which may be provided by balanced conservation and development of the region's water and related land resources" (From the Plan of Study), and

To provide a compendium of base data on the region's water and related land resources for the benefit of future planners and researchers.

The SENSE Plan is, according to its authors, "broad, comprehensive, long-range, multi-agency, water and related land resource oriented, and coordinated." The SENSE study group held meetings for various interested citizens' groups to ascertain grass roots feelings. Thus, the recommendations in the plan would appear to be the result of substantial state and local input.
paper, Chapter 6 of the SENE study covers marine recreation and, specifi
cally, planning for beach acquisition and beach access.

The SENE study area has been broken down into ten sub-regions, called
planning areas. We have selected individual municipalities, in a number
of the planning areas, which would be affected by specific beach acquisi-
tion recommendations of the SENE study. We have conducted personal
interviews with informed and concerned individuals in these communities.
We have attempted to talk with Town or City Managers and/or Planners,
First Selectmen, Planning Board Members and the like. Thus, it is our
intent that the views we report represent as realistically as possible
the municipal reaction to the specific proposals outlined in the SENE
plan.

Appendix A to this paper is a section of Chapter 6. "Outdoor Recre-
ation", Section II, the Regional Plan of the SENE study draft, speci-
fically pages 6-1 through 6-13. This will explain the methodology
used in projecting beach requirements and the planning philosophy
which resulted in the specific recommendations which will be discussed
below.

A Ipswich-North Shore (Massachusetts) Planning Area

The Ipswich-North Shore planning area includes all the coastal
municipalities of Massachusetts from Salisbury on the New Hampshire
state line south to Winthrop, on Massachusetts Bay, immediately north
of Boston.

The 130 mile coastline of the North Shore planning area has long
stretches of estuaries, beaches, and rocky headlands interspersed
with scenic harbors and villages. Thirty-five beaches occupy 25
miles of coastline. The majority of usable beaches, approximately
105 acres, are accessible to the public at large. The remaining beaches
are unusable because of inaccessibility, rock outcrops, lack of facilities, or the presence of large stones or boulders.

The more popular beaches, Revere Beach, Lynn Beach, and Winthrop Beach, which can be reached by good public transportation, are overcrowded on hot days and on weekends. Other excellent beaches, such as Crane's, Winghamersheek, Plum Island, and Long Beach are accessible only by automobile, and in any case would be inadequate to handle crowds from the Boston area unless facilities such as entrance roads, parking areas, bathhouses and rest rooms are expanded.

The SENE plan recommends that Revere Beach be widened and protected in accordance with the Army Corps of Engineers suggested approach. It further recommends improved public transportation and expanded facilities at the existing public beaches, and makes two specific recommendations; that the City of Beverly acquire West Beach and the Town of Swampscott acquire Phillips Beach for use by local residents, thus reducing pressure on existing public beaches.

On March 14, 1975 Mr. Daniel Bumagin, Planning Director of the City of Beverly was interviewed. Beverly is a city of approximately 36,000, with a mix of industry, low and middle class residential and a section known as Beverly Farms which is monied and exclusive for the most part. The City has three public parks which are available for regional use, only one of which, Dane Street Beach, is heavily used. There is one municipal beach which is heavily used and there are four or five public rights of way to the beaches which get little use because of restrictive parking regulations on adjacent streets.
West Beach, that cited in the SENE plan, is good-sized and beautiful; the best beach in the area. The bulk of West Beach is privately owned as part of large ocean front estates, and the public is excluded. In fact some property owners fenced their property to the low water mark, the seaward limit of most littoral land holdings in Massachusetts. A small portion of West Beach is owned by the West Beach Corporation. That section is reserved for the use of residents of Beverly Farms and thus might be considered semi-public.

A few years ago one of the estates on West Beach came on the market as a result of a death and the City made a move to purchase it for development as a city beach park. The adjacent estate owners who, understandably, have considerable political power, quickly squelched that action and the estate was purchased by private parties.

Mr. Bumagin stated that he had not been contacted by the SENE study group with regard to the situation at West Beach. He, of course, would like very much to acquire the beach, but feels that an eminent domain action would require well in excess of one million dollars and at the present time he is having difficulty in getting the council to appropriate twelve thousand dollars to re-landscape the city green. Thus even if he did not have to live with the political realities of his city, the prospects for the West Beach acquisition are dim indeed.

Interestingly, there is a group in the city known as the Shoreline Rights Association of Beverly. In a telephone conversation with Mrs. John Burns it was learned that the group had determined from historical records that West Beach was a part of the colonial highway to Gloucester.
This group makes an effort to walk West Beach once a year in an effort to maintain an adverse use, hoping eventually to find some common law grounds for public access.

On March 14, 1975 Mr. Glen Bartram, Chairman of the Planning Board, Swampscott, Massachusetts, was interviewed. Swampscott is a town of approximately 14,000 residents, fully developed and primarily a residential community. Swampscott has two beaches which are open to the regional public. King's Beach is quite long and is adjacent to the heavily used Lynn Beach, part of the Metropolitan District Commission beach park system. Blaney Beach is a small beach and was closed for five or six years as a result of pollution from the town sewage outfall. A new sewage treatment plant permitted the use of Blaney Beach in 1974. King's Beach has no parking area except that provided on the adjacent streets. Blaney Beach has a small parking area which is limited to the use of residents. Otherwise the users of Blaney Beach park on adjacent streets.

Phillips Beach, that cited in the SENE plan is for the most part privately owned, again the province of the well-to-do. It faces on the open Atlantic Ocean and much of it is sandy although relatively narrow. Mr. Bartram referred to specific sections of the beach by other names, apparently family names. Thus in 1974, the town of Swampscott purchased a 400 ft section of Phillips Beach known as Wales Beach and 50,000 square feet of parking lot area at a total cost of $400,000, which was financed by a bond issue. This will become a beach park for town residents only. Federal Bureau of Recreation funds were not requested in order to permit the town to restrict use of the beach to residents. Another portion of Phillips Beach, known as Preston Beach, is owned by a motel. The balance is privately owned.
Mr. Bartram could provide no information about public right of way which might exist to Phillips Beach. The writer drove through the streets adjacent to the privately owned portions of Phillips Beach and found every street liberally posted with no parking signs which proclaimed a $5.00 fine for violations. Thus if rights of way do exist, the public has little opportunity to make use of them except on foot.

Mr. Bartram is a semi-retired real estate broker who now limits his professional activities to appraising property. It was his feeling that Swampscott is doing very well by the regional public with King's Beach and Blaney Beach and with the town's recent acquisition of Wales Beach there is now no demand in Swampscott for additional beach area.

B The South Shore (Massachusetts) Planning Area

The South Shore planning area consists of ten towns extending along the coast from Cohasset in the north, closest to Boston, to Plymouth in the south. The area is for the most part residential and has experienced rapid residential growth in the past fifteen years. The 92 mile coastline has a wide variety of landforms. In the north, in Cohasset, are rocky headlands. Just to the south are broad barrier beaches and extensive wetland areas. South of Plymouth Bay coastal bluffs rise over one hundred feet in the air along the shore toward Cape Cod Canal.

About half the South Shore coastline is usable public beach (approximately 100 acres), two thirds of which is owned by towns, the other third of which is state or privately owned.

The SENE plan recommends that Duxbury Beach be developed as a major regional facility, with at least a doubling of the existing capacity. Recognition is made of the sensitivity of the barrier
beaches to damage, and only the north end is recommended for intensive use, and suggestions are made for control of dune buggy use. The plan wisely refrains from suggesting additional parking lots at the beaches or access roads to the beaches, rather suggesting the construction of parking lots along route 3, the major limited access highway to Cape Cod, and shuttle buses to the beach. The plan further recommends state acquisition of an approximate 5 mile stretch of beach area in Scituate and Marshfield.

On March 17, 1975, Mrs. Sally Wilson, member of the Planning Board, Town of Duxbury, and former member of the DuxburyBeach Study Committee was interviewed. Mrs. Wilson supplied a little pamphlet entitled "Duxbury Beach, Where Sand is Running Out." This was prepared by the Duxbury Beach Study Committee in February, 1973 and is quoted extensively below because it is a case study of a concerned community's actions and reactions to the whole complex problem of public use of a fragile barrier beach.

The Problem
Simply stated, the problem is Duxbury Beach is being ravaged by the ever-increasing recreational demands placed upon it. Dunes are being eroded at such a rate that the entire vertical topography (dune height) has been drastically lowered in recent years. This has been the direct result, of foot and vehicular traffic moving indiscriminately over sand dunes, destroying the vegetation which serves to hold sand grains in place.

In many instance, the dunes have been totally eroded. In other cases, the dunes have diminished to such an extent that storm waters have washed through creating permanent "blow-outs".

The number of blow-outs, has in fact, increased at an alarming rate in a one mile transect: from 9 in 1951 to 14 in 1957, and to 19 in 1964. The 9 blow-outs in 1951 comprised a total distance of 298.8 feet. The 14 blow-outs in 1957 totalled nearly 3 times that.
Those in 1964 totalled 1,742.6 feet. On the average, 35 percent of stable sand present in 1951 was lost from the dunes by 1964.

There is no data available since 1964 to quantitatively document sand loss in recent years. However, as those citizens who visit the beach frequently could testify, the trend of continuing sand loss still seems to be occurring at a disturbing rate. In short, what took nature thousands of years to build, human use and natural forces are combining to destroy in abrupt fashion.

Before discussing the reasons why the Beach Committee feels an expenditure of public monies on the beach should be made, we would like to review the history of Duxbury Beach.

The History
For more than 30 years prior to 1919 Duxbury Beach was owned by members of the Wright family who owned the once splendid estate opposite the Public Library, now the site of the Eben H. Ellison Middle School. However fantastic the idea may seem in the light of present knowledge of the instability of the beach, they had serious plans, as shown by old time maps, for developing the full length of the beach in small house lots. Undeterred by the famous 1898 storm, they built three fairly sizable cottages, one at High Pines and two between High Pines and the bridge. In 1919 the executor of the Estate of Georgianna B. Wright offered the property for sale. With the plans for real estate development known and the even more serious danger that the beach might develop along Revere Beach or Coney Island lines, a meeting was held and some 18 to 20 loyal Duxburyites raised enough money to buy the property. Title was taken on November 29, 1919, in the name of Duxbury Beach Association, a common law trust organized for the purpose of acquiring the beach and protecting it for the benefit of Duxbury.

Technically a "private enterprise," the Association pays town taxes, but no dividends have ever been paid on its shares, and its trustees serve without compensation.

In the last 38 years the Beach Association has many times enlarged the parking areas and it maintains them at its own expense; its policy is to keep the northern parking space for the use of Duxbury people large enough to take care of all comers even on the few most popular holidays of the year.

Until 1941 the public parking space at the north end was so far from the Duxbury Bay side of the beach that public bathing was for all practical purposes limited to the outer beach. In 1941, therefore, to satisfy the demands of the public for bathing in the bay, the Association extended the road from the old northerly parking space to the cove of the beach and there built an entirely new parking space and the public bathouse and lunchroom now known as the Pavilion. These improvements were financed in part by additional
subscriptions from shareholders and in part from proceeds of sale for summer residence purposes of small parcels of land outside the park area at the extreme north end of the beach.

Every few years between 1930 and 1950, the question of State acquisition of Duxbury Beach was raised in one form or another, and often bills were introduced into the Legislature to accomplish this. For this period of more than 20 years, the threats were successfully defeated by Duxbury's able and watchful representatives in the Legislature with such assistance as they requested from the Selectmen and from the Duxbury Beach Association Trustees; but no special effort was required during this period by Duxbury residents in general.

In 1958, the Trustees became seriously concerned over misuse of the beach south of the bridge by the rougher element, together with the problem of jeeps in the dunes and speeding on the beach. An Article in the Warrant for the 1959 Town Meeting proposed the appropriation of $800 for patrolling the beach, but this was not adopted at that time. In 1960, however, on the initiative of the Selectmen, several meetings and conferences were held between the Selectmen and the Trustees at which this problem was thoroughly discussed. For 1960, a new sign with new abbreviated rules was placed on the beach; and in 1961 the Association volunteered to make a four-wheel vehicle available for the Police Department and the Town Meeting appropriated $4,500 for the purpose of establishing a police patrol for Duxbury Beach during the summer months.

The patrol was considered so successful in 1961 that substantially the same arrangements, with the vehicle provided by the Association and Town appropriation for policing, were continued in 1962 and 1963. Nevertheless, as use of the beach increased, problems of speeding, destruction of dunes, littering and the like persisted despite the patrol. Conferences were held between the Association Trustees, the Chief of Police and the Selectmen in December, 1963 and in April, 1964. In 1964 the Association gave the Town the beach vehicle which was turned in by the Town for a new one, and at the March Town Meeting, the Selectmen were given specific authority to fix the resident sticker fee for use of the beach. Arrangements were worked out on a trial basis for closer control of the use of the beach by out-of-town vehicles. The association acquired more barrels and made arrangements for frequent emptying of barrels, in an effort to reduce litter. Further steps for alleviating bad conditions on the beach were taken in subsequent years, and are constantly under consideration and review by the Selectmen, by the Police Department and by the Beach Association Trustees at joint meetings held at least annually.

As evidence of its broad interest in all phases of conservation efforts, in 1968 the Beach Association made available to the Massachusetts Audubon Society a small area at High Pines for establishment of a sanctuary for migrating shore birds.
For more than 37 years, sometimes with honest differences of opinion, but more often, particularly in recent years, with complete harmony and mutual understanding, the Town of Duxbury and the Duxbury Beach Association have co-operated in beach problems, with the broad objectives of keeping the beach in its natural state and of giving Duxbury residents as much preferential use as seems practical in view of the ever-present threat of State taking. This co-operative effort has made possible results which could not have been achieved by either alone. For example, based on legal opinions of the Town Counsel and of counsel for the Association, if the Town owned the beach as a public park it could not differentiate between Duxbury residents and the public generally; as private owners, the Beach Association can and does. The Beach Association, on the other hand, could not afford to set up arrangements for issuing beach stickers to Duxbury residents and could not afford to pay for policing the parking spaces and the beach in general. These functions can best be provided by the Town; and, backed up by Town Meeting votes as required, it has loyally done so.

Recommendation and Summary

Two Warrant Articles are being presented by the Duxbury Beach Study Committee. They are the result of many meetings and hours of study of the problem of the protection of the beach from erosion due to storms and high winds. The more recent phenomenon of increasing human over-use further aggravates the natural problem.

This has been happening to a serious degree here in Duxbury. Many of the protective dunes are being washed or blown away and the gaps between the dunes are being washed even deeper during major storms. In fact, if this is allowed to continue, we will have a series of islands bounded by inlets from the ocean instead of a continuous, usable beach.

Coastal engineers have known for years that sand dunes are among nature's most effective barriers against the action of waves, tides, and winds.

In its report to the Selectmen, the Beach Committee recommends that immediate dune restoration efforts be focused on the Beach. Bulldozing available sand into the most seriously eroded "blow-outs" should be done without delay. Extensive snowfence construction is needed to trap and help hold shifting sand. Transplanting and fertilizing beachgrass is necessary to permanently stabilize the sand and initiate the process of naturally restoring and maintaining the dunes of the Beach.

The Beach Committee believes that to start with, certain changes in the rules for use of the beach should be made and enforced. These should include protecting the grasses and fencing on the existing dunes by preventing travel over these areas by foot or vehicle.
Further, the committee concluded that additional money will be required to supplement the funds of the Beach Trustees, in order to accelerate the work of dune rebuilding and the protection of the dunes that remain. The Duxbury Beach Association has made an effort to begin the preservation and re-building the dunes, and most of its income from the pavillion and parking fees has been spent on the maintenance and improvement of the beach, including the parking lots. Many volunteer helpers have added to the protective effort. However, at this time, further measures are imperative if the beach is to be preserved.

The beach committee recommends that a Beach Conservation Officer be hired by the Town of Duxbury to enforce the beach rules and to supervise the necessary re-building. It also recommends that the Town rent the beach until June 1974 for the sum of $15,000.00, thus doubling the funds which the Duxbury Beach Association can expend for the improvement and restoration of the beach. Expenditure of these funds will be by approval of the Selectmen and the Beach Trustees or their designates.

Duxbury, whose population of 11,000 is inflated slightly by summer residents, is a purely residential community. In fact, industry is forbidden by statute. It is apparent from the pamphlet quoted above that there is strong concern in the town for the preservation of its barrier beach, an irreplaceable coastal asset. The town meeting accepted the Beach Study Committee's recommendations and the beach restoration program has successfully begun. Beach grass has been planted and dune erosion has been substantially reduced. Mrs. Wilson does not feel that Duxbury Beach should be considered at this time as a major regional beach park.

Duxbury Beach is now fully public at its north or Marshfield end. There is limited parking, however, and the access road on the back side of the beach is in bad repair, fit for use only by four wheel drive vehicles. Duxbury residents cross the bay on the Powder Point Bridge to reach the Duxbury residents parking lot which holds 300 cars. Town residents pay an annual sticker fee for use of the parking lot and these revenues go to the town, which pays the
Duxbury Beach Association a $12,000 annual rental fee for the beach. Public parking revenues from the lot at the Marshfield end of the beach accrue to the Association. The town polices the beach.

In January 1975, a car went through the Powder Point Bridge, an elderly wooden structure, effectively preventing its use for access to the beach. At the time of this interview a decision had not been reached as to whether or not the town would rebuild the bridge. One faction favored using the Marshfield access and improving the access road, while maintaining resident-only parking, as a further measure of beach protection. It is difficult to predict the outcome of this state vs. town struggle over Duxbury Beach. Ultimately, the state will probably prevail, but it will cost several million dollars, in all likelihood, so for the immediate future, at least, Duxbury seems safe.

On April 11, 1975, Mr. Edward G. McCann, Town Administrator, Scituate, Massachusetts, was interviewed. Mr. McCann reported that Scituate sent representatives to some of the pre-planning meetings held in the area by N.E.R.B.C. Mr. McCann's feeling is that Scituate would probably react negatively to the N.E.R.B.C. suggestion that the D.N.R. acquire large sections of beach in Humarock. There are now limited parking facilities for local residents at the beach and the road network is not adequate to handle additional heavy traffic loads. Scituate now has problems in policing, cleaning up litter and controlling unruly youth groups. An influx of public beach users from the Boston metropolitan area would add further problems.
Scituate has their own ongoing coastal management study. This has grown out of the Planning Board's concern over the pressures of residential development and the need for better zoning controls. This study will undoubtedly attack the problem of additional beach facilities.

On April 9, 1975, Ms Marguerite Morris, member of the Planning Board, Town of Marshfield, Massachusetts was interviewed briefly by telephone. Marshfield is a town of less than 10,000 people, adjacent to Duxbury on the north, and has the only existing access to the Duxbury barrier beach now that Powder Point Bridge is out of service. Marshfield residents have their own sticker parking area at the north end of Duxbury Beach. Ms. Morris was questioned about the town's reaction to the SENE recommendation that the DNR consider the acquisition of approximately five miles of beach in Marshfield and the Humarock section of Scituate. Ms. Morris' response was interesting in that it neatly defines the basic conflict. She felt that by and large, the residents of Marshfield felt that Marshfield's beaches belonged to the town. She, however, lived in Willow Grove, PA, an inland town, before coming to Marshfield. From Willow Grove most people go to the public beaches in New Jersey and Delaware. This personal experience has led her to the conclusion that the general public does have some right of access to the shore. Ms. Morris reported that the 1973 Marshfield Master Plan recommended a controlled access public beach in the Rexhame Beach area of Marshfield. This
is a portion of the beach area included in the SENE plan. To date there has been no implementation of the Master Plan with regard to the public beach.

C Narragansett Bay (Rhode Island) Planning Area

The Narragansett Bay Planning Area consists of the Rhode Island and Massachusetts cities and towns surrounding Narragansett Bay (excluding Fall River, Mass), sixteen in number, plus the Bay Islands and Block Island. The shoreline of the area including the major islands is approximately 288 miles in length. Sand and gravel bluffs mark much of the shoreline, but there are also rocky headlands, sandy beaches, salt marshes and mud-flats. There are approximately eighteen miles of public beach. The 1970 population of the area was 291,000.

Among the SENE plan recommendations are two which will be discussed here.

a. The Rhode Island D.N.R. should acquire and develop a one mile public beach in Warwick, by combining Edgewater, Cedar Tree Point, Nausauket, Floating Hospital, and Buttonwood Beaches with new beach construction as connectors.

b. The Town of North Kingstown should acquire Shore Acres, Blue Beach, and Mountview Beach for about a mile of public swimming and consider the construction of additional beach frontage as connectors in both areas.

On April 11, 1975, Mr. William George, Planning Director, City of Warwick, RI was interviewed. Warwick, a city with a 1970 population
of 84,000, is on the west shore of Narragansett Bay, just south of Providence. It is a mixed residential, industrial community with 39 miles of shorefront. When appraised of the SENE plan recommendations, Mr. George stated that he felt the area recommended for acquisition was really not very desirable beach property. It is well up in Greenwich Bay, generally narrow and rocky and seldom has any surf because of its sheltered location.

The City of Warwick has its own ongoing master recreation plan for Conimicut Point, a much more desirable beach area, in Mr. George's estimation. Conimicut Point is on the open bay, gets good surf action, in fact, suffered much damage in the 1938 and 1954 hurricanes and is zoned as an area of high flood danger. Under its master plan the city has acquired 15 acres on the tip of the point which has been developed as beach and recreation area. Phase II of the plan, which involves acquisition of an additional 13 acres is in the works, and the city is seeking Bureau of Outdoor Recreation (BOR) matching funding, so the beach will be available to the general public. Phase III will ultimately add additional acreage, bringing the total beach park to its 40 plus acre planned size.

South of Conimicut Point, the city has started the development of Bayside Beach, using B.O.R., Housing and Urban Development Department (HUD) and city funding. The plan is to connect Bayside Beach and Conimicut Point Beach eventually. Because of the Federal funding involved, the whole beach area will be public beach.

There are other sections of beach in the city which are privately owned. City officials are discussing a plan whereby the owners of these
beach properties might be given a property tax reduction in return for public access to and use of the dry sand area of the privately held beaches. This proposal has not as yet been finalized, but is an innovative approach to the sensitive problem.

On March 3, 1975 Mr. John Mulligan, Town Manager, North Kingstown, RI, was interviewed. North Kingstown, with a 1970 population of 30,000 is located on the west shore of Narragansett Bay and is primarily residential. However, within its borders are the huge Navy installations of Quonset Point and Davisville. These installations have substantially reduced their employment and will ultimately be phased out, with resultant sever economic strains on the town of North Kingstown.

Mr. Mulligan's reaction to the SENE proposal that North Kingstown acquire Shore Acres, Blue Beach and Mountview Beach was mixed. It was his feeling that an attempt to acquire Shore Acres and Mountview Beaches would result in a real battle because of the character of the residential development in the two areas. In general he supported the idea of a long range, planned development by the town of Blue Beach, coupled with two other areas known as Calf'sNeckPasture and Dog Patch, now part of the Navy's Quonset Point complex. As a result of the town's financial problems caused by the Navy pullout, he saw no near term possibilities of such acquisition and development.

D. The Pawcatuck, (Rhode Island), Planning Area

The Pawcatuck planning area consists of six Rhode Island coastal towns from South Kingstown in the east to Westerly on the Connecticut state line. The SENE planning area also includes three Connecticut towns, but they will not be a concern of this paper. The shoreline is about 73 miles long and consists mostly of long barrier beaches, salt ponds, and marshes interspersed with rocky outcrops.
Matunuck. Mr. Gray attributes this to the fact that it is primarily a family beach, and that here are no liquor establishments.

On April 4, 1975 Mr. Eugene F. Gervasini, Town Manager of Westerly, RI was interviewed. Westerly is a primarily residential town of 18,000 which abuts Connecticut. Quonochontaug Beach is a barrier beach with high, well vegetated, stable dunes over most of its length. It is generally undeveloped. Most of that portion which is in Westerly is owned by the Weekapaug Fire District and is administered as a conservation area. The beach now sees limited use for swimming.

Of those interviewed, Mr. Gervasini was the first to endorse SENE's recommendation, and for an interesting reason. Westerly now has a public beach, Misquamicut State Beach which Mr. Gervasini referred to as a cancer. On a warm summer Saturday all access roads to Misquamicut are clogged with traffic. Twenty five busloads of swimmers are not unusual. Westerly requires the services of thirty uniformed police, regulars and auxiliaries, to handle the traffic. Each Monday during the season a truck and three or four men are required to clean up the cans, bottles and other litter. A careful estimate of the cost to the Town of Westerly was made in 1972. The figure came to $40,000. Since 1973 the State of RI shares 25% of the State Beach parking revenues with the municipality involved. Westerly's share in 1973 was $28,000; in 1974, $26,000.

The foregoing is background to Mr. Gervasini's reason for supporting SENE's recommendation to develop Quonochontaug as a conservation/recreation area. If Quonochontaug were developed it would take pressure off Misquamicut. This fact, coupled with the by-pass road under construction from north of Westerly would relieve the traffic problem now being experienced by the town.
Westerly provides an interesting study in the problems encountered by the RI Rights of Way Commission in locating deeded public rights of way to the beach and marking them for the use of the general public. Rights of Way #6 and #7 on the RI Public Rights of Way map dated January 1974, are located on Watch Hill Point in Westerly. Watch Hill is an exclusive area, with many large estates. In order to make it difficult for the general public to locate these rights of way, the street signs for all roads leading to the ocean have been removed. All streets are marked with signs which read, 'No Parking - Tow Away Zone'.

When questioned about these conditions, Mr. Gervasini pointed out that the Watch Hill Fire District, composed mostly of local residents, had a great deal of political influence in Westerly.

V Conclusions

It was not the initial intent of this paper to make any type of evaluation of the New England River Basin Commission's Southeastern New England Study. However, the results of the investigation demand comment. In fairness to the SENE study, to must be noted that this paper addresses only one small element of the overall SENE plan, and furthermore, the beach issue is probably the most emotion-laden of all the planning elements.

The regional planning process seems to this writer to be the most practical approach in this large nation of ours, with its many diverse regional concerns. However, if regional planning is to be effective, it must be credible, and credibility requires solid grassroots input, which recognizes the political facts of life. The method
used in the SENE study, i.e., local meetings throughout the study area was apparently not an effective method of generating such input.

Certainly in New England, and probably along much of the Atlantic seaboard, the municipality is the functional unit of government for land use planning and zoning. Any regional planning effort which does not recognize this fact and therefore does not take the time and trouble to become intimately familiar with the situation in each municipality, by whatever means necessary, is doomed to become just another exercise in putting words on paper. This is unfortunate because studies such as the SENE study consume large amounts of the taxpayers' money. More important, probably, is the fact that even paper exercises consume time, in the order of two or three years. Meanwhile, those concerned with the results of the planning effort wait, and may perhaps receive a well organized pile of useless paper. Coastal zone planning has too long been neglected and we cannot allow ourselves the luxury of paper exercises when down-to-earth planning is required.

If, from a paper such as this, one is to arrive at conclusions which have any degree of validity, it is necessary to separate fact from philosophy. It is fact that the existing supply of public beaches is inadequate to meet the demands of the public and that this demand pressure increases each year. It is fact that the existence of the poor in the inner city, or ghetto, or barrio, or slums, or whatever label one chooses, needs improvement, and that fun at a beach can make life more bearable. It is fact that in an earlier, more basic, economy, the law protected the rights of the common man to use and have access to the foreshore for fishing and navigation. It is philosophy that has taken this set of facts and derived therefrom a claim of public right to use the beach for recreation.
There is no question that in this free society of ours, any individual who wants to enjoy the beach should have the opportunity to do so, as should the golfer and the gourmet have the opportunity to indulge their individual fancies. But these opportunities are privileges of a free society, not inalienable rights, and because they are privileges, the individual must be prepared to pay to exercise those privileges.

The declaration by fiat of the public's prescriptive right to the use of the dry sand beach for recreation, as proposed by the National Open Beaches Bill, is, in all probability, unconstitutional and, in this writer's opinion, morally wrong, as well. The people who bought beach property in good faith and have paid taxes and protected that beach over the years are also citizens who are entitled to the protection of the law. If it is in the public interest that private beach be made public beach, then the private owner must be fairly reimbursed for his property.

While the court cases discussed earlier in this paper are interesting and serve to illustrate common law mechanisms which may prove useful in selected beach access cases, it must be noted that some of the state statutes, under which these actions were taken, have yet to have their constitutionality tested. Beyond this fact, circumstances must be exactly right in order to apply the common law doctrines successfully. In the older, more developed sections of the country, such as New England, the likelihood of having such a favorable set of circumstances becomes extremely remote.

In short, if the public is to have the additional beaches it needs, those beaches must be purchased from their present owners. This will involve hundreds of millions of dollars. Given the present state of the economy and, in recent history, the reluctance of the
electorate to approve bond issues, the raising of these millions presents a formidable task. It would appear necessary to develop some politically acceptable method of having the beach user provide the funds whereby additional beach maybe acquired. This is recognized by some authorities now, in that some portion of beach parking revenues is earmarked for new beach acquisition and development. But, by and large, parking fees are nominal and it is unlikely that this mechanism will be adequate to provide the necessary funds.

Some innovative thinking will be needed, if the funds for beach acquisition are to be raised in any reasonable length of time. In that vein, we offer for consideration the suggestion that a swimming or beach license be required. One's first reaction is that such a proposal fails the test of political acceptability, but perhaps it may. The toddler on the beach with pail and shovel is no more a part of the traditional image of American childhood than is the bare-foot boy with a willow pole over his shoulder and a can of worms in his hand. And yet the American public has long accepted the right of the state to require of individuals above a certain age a license to fish in the streams and lakes within the state. Revenues from these licenses have been used to raise fish and stock waters and also acquire access points for fishermen.

The requirement for a swimming license for persons over the age of 16, for example, would generate a substantial fund each year and would work no hardship on the great majority of our citizens. For those unable to afford the license, arrangements could be made to issue cut-rate or free licenses through existing channels now providing such things as food stamps and welfare.
A parallel licensing arrangement might be considered for a salt water fisherman. California is one state which already requires such a license. Revenues from such fishing licenses could be applied toward beach acquisition for surf fishermen, as well as the construction of boat launching ramps and fishing piers.

The licensing arrangement would also provide an effective means to control the irresponsible behavior which too many individuals are prone to exhibit. Littering, drunkenness, destruction of public or private property, trespassing on adjacent private property and the like could make the license subject to suspension or revocation.

Whether or not such a proposal has merit or is, in fact, practical cannot be decided here. It is the conclusion of this study that private property rights in the beaches of the United States must be recognized. In general, additional public beaches must be purchased, and the beach users must accept the costs. The sooner the public accepts "going to the beach" as the privilege it really is, the sooner the solution of the problem of public access to the beaches of this nation will be realized.
Notes


3 US v. California 381 US 139 (1965)

4 The Daniel Ball, 77 US (10 Wall.) 557, (1870)

5 Ducsik, Shoreline p. 87-95

6 Ibid. p. 96-105


8 Ibid. p 573

9 375 S.W. 2nd 923 (Tex. Civ. App. 1964)

10 McKeon, Beaches p. 577-578


12 Ibid.

13 McKeon, "Public Access." p. 576

14 69 Misc. 2d 763, 330 NYS 2d 495 (Sup Co 1972)


16 No. 27-102 (Ore. Cir. Ct 1/3/69)

17 254 Ore. 584, 462 P. 2d 671 (1969)

18 Sager, Beaches p371-2


20 Ducsik, Shoreline p. 106-110

21 61 N.J. 296 (1972)

22 Ducsik, Shoreline p. 118-20
23 H.R. 10394, S. 2691 93rd Congress, 1st Session
introduced by Rep. Robert Eckhardt (Sept. 19, 1973) and Senator
Henry Jackson (Oct. 30, 1973)

24 "Open Beaches", Hearings before the Subcommittee
on Fisheries and Wildlife Conservation and the Environment of
the Committee on Merchant Marine and Fisheries. House of Represen­
tatives, Ninety-Third Congress, First Session on H.R. 10394 and
H.R. 10395, October 25, 26, 1973, Serial No. 93-25 p.2-4

25 Ibid. p. 10
26 Ibid p. 4-12

27 H.R1676 Ninety-Fourth Congress, First Session, January
20, 1975
28 16 U.S.C. 1451 et seq.
29 New England River Basins Commission (a promotional
brochure) p.5

30 "Water Land and People"
Public Review Draft Report of
the Southeastern New England Water and Related Land Resources

31 Ibid p.1-3
32 Ibid, Volume 1, Part III p. 6-1 thru 6-3
33 Ibid, Volume 3, Part III p.2-1
34 Ibid, p. 6-1 thru 6-4
36 Ibid p. 6-2 and 6-3
37 Ibid, Volume 10, Part III p.2-1
38 Ibid p. 6-1 and 6-2-
APPENDIX

CHAPTER 6. OUTDOOR RECREATION

Introduction

This chapter considers many outdoor recreation activities—swimming, boating, saltwater fishing, camping, picnicking, hunting, freshwater fishing, and passive pursuits such as hiking and nature study. All are either water-related or water-enhanced. Some of the activities such as swimming may be considered as intensive—a large number of participants are usually accommodated in a small area. Others, such as passive pursuits, are extensive—a major part of the experience is the isolation and hence a very large area is required per participant.

For each activity the chapter examines the demand and supply situation, considers alternative solutions for meeting needs, characterizes alternative plans, and presents recommendations. The implications of carrying out the recommended program concludes the chapter.

The best currently available consistent estimates of future recreational demand for the entire region were systematically developed in the North Atlantic Regional (NAR) Water Resources Study in 1971*. Assuming that the people in the SENE area will want to participate in outdoor recreation at the same rate as the average New Englander did in the last decade, and after making allowances for the changing population in terms of numbers, age, education and affluence, the average SENE citizen in 1990 can be expected to have a demand for outdoor recreation about as follows:

- 19 occasions swimming: 11 in the ocean, 4 in lakes and streams and 4 in pools.
- 6 occasions boating: 2 requiring slips and moorings, 1 requiring boat ramps and 3 requiring neither.
- 3 occasions fishing.

*Recreational demand estimates have been under continuous study. In the past, demand methodologies have failed to account for latent demands and changing economic and social conditions. They further vary from state to state. Recently, public agencies responsible for recreational planning in New England formed a Recreation Demand Study Committee. The SENE Study endorses the Committee's proposal to formulate a demand-supply methodology applicable to the New England region.
The objective of this chapter is to develop a program for meeting anticipated recreational needs in environmentally, economically and socially acceptable ways.

To satisfy this anticipated demand, certain basic facilities will be required. Exactly how many depends upon many factors such as usage rates and spatial standards. Both will vary from place to place. Using the general factors considered representative in the NAR study and supplementary studies by the U.S. Bureau of Outdoor Recreation, projected requirements and the existing supply are shown in Table 6.1. Their difference is an estimate of deficiencies ("needs").

**TABLE 6.1 PROJECTED RECREATIONAL NEEDS**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Projected Rqmts. in 1990</th>
<th>Existing Supply in 1990</th>
<th>Deficits (Needs) in 1990</th>
<th>Percentage Unmet</th>
<th>Annual Occasion Denied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres of developed beach</td>
<td>4,500</td>
<td>2,200</td>
<td>2,300</td>
<td>51</td>
<td>8</td>
</tr>
<tr>
<td>Slips and moorings</td>
<td>67,000</td>
<td>47,000</td>
<td>20,000</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>Boat ramps--lanes</td>
<td>900</td>
<td>400</td>
<td>500</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>Picnic tables</td>
<td>23,000</td>
<td>9,000</td>
<td>14,000</td>
<td>61</td>
<td>2</td>
</tr>
<tr>
<td>Campsites</td>
<td>29,000</td>
<td>10,000</td>
<td>19,000</td>
<td>66</td>
<td>1</td>
</tr>
<tr>
<td>Acres for passive outdoor recreation</td>
<td>350,000</td>
<td>220,000</td>
<td>130,000</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Table 6.1 brings out several major perspectives that must be considered in meeting this objective.

(1) In terms of impact on future outdoorsmen, the occasions denied for swimming about equals the occasions denied for all other major recreational activities combined.

(2) Satisfying swimming needs will require intensive development of a very small area of land -- less than one tenth of one percent of the total SENE land areas. Emphasis here must be on developing selected, high-quality, favorably-located beaches for public use, and on improving access and transportation.
(3) Boating needs rank second in total quantity. Since boating is the fastest growing of the listed activities, meeting its needs may be difficult. Boat ramps are highly efficient in meeting small boat demand. Existing slips and moorings are now near capacity for medium and large boat demands.

(4) There appears to be a large deficiency in picnic sites. The quantity ought to be relatively easy to provide, however, by an increase in informal (away from picnic grounds) picnicking. Abundant space is available on SENE critical environmental areas (Category A and B lands on Plates 1, 2, 3) recommended in Chapter 3 for protection.

(5) A high proportion of camping needs appears to be unmet. Since most campsites require some roads and utilities, this need will probably be difficult for both the public and private sectors.

(6) Area requirements for passive outdoor recreation seem staggering -- another 5 percent added to the existing 9 percent of SENE's total land area. The problem is eased considerably by recalling that about 16 percent of SENE (Category B lands) is recommended in Chapter 3 for protection as flood plains, prime agricultural lands, natural area and proposed reservoirs and watersheds. Both categories are ideal for passive outdoor recreation. The main limitation is acquiring public access. Even with full access, however, some shortfalls may still occur on the less-water-related uplands desired for hiking and hunting.

Not conveyed in Table 6.1 is the geographical distribution of demand. As could be expected, demand is concentrated principally in Boston, Providence, and Worcester. Residents of these three areas, about a third of whom do not own an automobile, find difficulty in reaching recreation resources in other parts of SENE. Also recreational demands from outside SENE are not accounted for. We have no idea how much of the recreational demand within the region is satisfied in other parts of New England or the U.S.

The coastal resources of the Cape Cod, Narragansett Bay and Pawcatuck planning areas are under pressure from a second source of demand -- tourism from inside and outside the SENE region. Meeting recreational demands in these planning areas has much broader economic and environmental implications.
than just increasing the size and adequacy of recreational facilities. For example, seasonal population increases would require substantial increases of improvement in water supply, sewage treatment and other services. Care must be taken, however, to see that tourist facilities are not expanded at the cost of spoiling the basic natural resources which attract these recreationists as well as other forms of economic activity.

Satisfaction of recreation demands can be cumulatively important for three strategic reasons: (1) absorbing a large portion of regional recreation demands at a local level improves local environmental quality and reduces transportation requirements; (2) allowing controlled and compatible recreation use of public Category A and B lands improves the political likelihood of keeping these lands in a protected status as proposed in Chapter 3; (3) maintaining the region's environmental and social amenities should become increasingly important to the region's economic future, as was pointed out in Chapter 2.

At the federal level the most active agencies for recreational planning are the Bureau of Outdoor Recreation (BOR) and the U.S. Fish and Wildlife Service (USFWS) both of the U.S. Department of the Interior, the Department of Housing and Urban Development (HUD), the Corps of Engineers (the Corps) and the Coast Guard. The most active state agencies are the two state Departments of Natural Resources (DNR), the Massachusetts Metropolitan District Commission (MDC), and the Rhode Island Statewide Planning Program. At the local level, conservation commissions have an important role. For successful implementation, however, coordination among agencies responsible for transportation, commerce, land use planning and development, public works, and the private sector is essential.

Federal aid is available for recreational acquisition and development at federal, state and local levels through the Land and Water Conservation Fund Act of 1965 (PL 88-578) administered by the Bureau of Outdoor Recreation. To qualify for matching funds, Massachusetts Department of Natural Resources and Rhode Island Statewide Planning Pro-
gram have prepared and are periodically updating Statewide Comprehensive Outdoor Recreation Plans (SCORPS) which identify priorities for recreational needs, among other things. Proposed projects which comply with the SCORP priorities receive planning grants and technical assistance. The current federal share is 50 percent, but there are motions in Congress to increase the federal share to 70 percent. SENE encourages Congress to increase the federal share. Municipalities which have conservation-recreation open space plans can also apply for funds on the basis of up to 50 percent federal share.

Since the program's inception, Massachusetts has received over $25.5 million for such acquisitions as Boston Harbor Islands. Rhode Island has received nearly $12 million for acquisition such as Ninigret Conservation area and Snake Den State Park.

Municipalities can tap funds authorized by the new Housing and Community Development Act of 1974 (PL 93-383) administered by HUD. The funds can be used for any aspect of community development, including open space acquisition or urban park development. Entitlement cities (those recognized by the legislation with populations larger than 50,000 living within Standard Metropolitan Statistical Areas) will use 80 percent of the funds for Fiscal Year 1976 and the other municipalities (discretionary municipalities) will use the remaining 20 percent.

SENSE encourages Providence, Boston and Worcester, among cities automatically entitled to funds, to apply for a grant and use the funds partly to increase recreational opportunities as outlined in the passive outdoor recreation section.

Both Departments of Natural Resources administer programs for aiding acquisitions on a municipal level. The Rhode Island Green Acres Fund has (including $5 million for state use and $2 million for local use) provided up to 50 percent of municipal (and state) projects for recreational acquisition and
development. The Fund, applied to such developments as the bathhouse complex at Second Beach in Middletown and acquisition of 106 acres of recreation land in Gloucester, has been exhausted and SENE encourages the state to generously refund the Green Acres Program.

The Massachusetts Self-Help Program provides up to 50 percent for acquisition of conservation lands, only, but the lands can be used for low-intensity recreation such as hiking, walking, and nature study. Since the program's inception in 1961, the state has reimbursed municipalities over $6.2 million for 536 projects involving nearly 17,700 acres.

Swimming

The Situation

According to Table 6.1, the amount of public beach required to meet 1990 swimming demands is likely to be twice as large as the existing area. This section concentrates on ocean beaches, one of SENE's most valued resources. One problem with satisfying beach demands is that roads, public transportation, and facilities for public beaches are often undeveloped. A second problem is that there is not enough public access to the coastline. According to the National Shoreline Study, of SENE's total 1,540-mile shoreline only 225 miles are available for public recreation. A related issue concerns public rights along the shoreline. In Rhode Island, the public has access rights to the area between the mean high and mean low watermarks (the foreshore). In Massachusetts, only the shore below the low watermark is publicly accessible. A third problem is the availability of funds to acquire and develop new regional beaches and local resistance to beach development. A fourth problem is that many existing public beaches are eroding due to a combination of natural forces and human misuse. Ocean waters north of Provincetown are notoriously cold, so that tourists may prefer the Cape's southern beaches or those in Rhode Island. Finally, water pollution limits swimming in some places occasionally.
Because coastal tourists and beach users often travel long distances to SENE's beaches, there's a need for better coordination between beach developers and campground and picnicking facility planners. Efforts to develop new tourist services should be coordinated with efforts to develop additional or new beaches, although intensive development of critical environmental areas (Category A and B lands) should be restricted.

Solutions

Alternatives. The three major alternatives for satisfying future beach needs are (a) adding facilities to existing parks and beaches, (b) acquiring public access to the shoreline; and (c) acquiring new beaches for state parks.

a. Adding Facilities to Existing Public Parks and Beaches. One method of meeting a small, but significant portion of urban swimming demands is adding facilities at the nearby beaches. Beaches in the North Shore, South Shore, Cape Cod and Narragansett Bay planning areas have considerable potential for meeting these demands, but inadequate public transportation, facilities, and inadequate parking hinder their most efficient use. During the 1974 summer season, the Rhode Island DNR developed a very popular program of shuttling Providence residents to beaches in upper Narragansett Bay. If additional parking facilities were provided away from the beaches and connected to the beaches by local public transport, beach use could increase and total impact on coastal lands could be lessened. Improvement of Route 146 from Worcester to Providence would help Worcester area residents reach coastal beaches in the Narragansett Bay planning area. To improve the recreational experience, bath houses, beach patrols, and lifeguards are needed at several beaches in the North Shore, South Shore, Narragansett Bay and Pawcatuck planning areas. Details are available in individual planning area reports.

Beach erosion control is important to maintain the region's existing beaches. Alternatives for controlling coastal erosion are discussed in Chapter 8, Flooding and Erosion. In addition, periodic beach nourishment
can be considered for heavily used beaches. It is especially appropriate for state and locally owned beaches.

More efficient use of existing beaches is usually less expensive than acquiring and developing new beaches. Environmental impacts are less. Traffic congestion, so typical at heavily used beaches, can be controlled with improved public transportation and shuttle services to distant parking lots. Swimming opportunities could be improved so far as to meet about 10 percent of the future swimming demands.

b. Acquiring Public Access to the Shoreline. A plan for acquiring public access to the shoreline to satisfy swimming demands—and also demands for surfcasting, shellfishing, and passive outdoor recreation—would contain several components. First, in Massachusetts public rights to the foreshore must be gained. A bill (proposed by Senator Bulger) in the Massachusetts General Court would provide the public a free right of passage on foot along the coastline between mean high and mean low water, subject to certain restrictions. The Massachusetts Supreme Judicial Court has ruled the proposed legislation constitutional (H. B. No. 6438, page 16, July 1974) and cited weaknesses of the bill which would need to be corrected, including provisions for compensation and notice of pending acquisition. Both states could consider expanding public rights to the area above the mean high watermark, following Oregon's example.

Second, public access should be increased to beaches which are not highly erodible. Public beach access can be gained through proof of prior public use and gifts of conservation easements or other interest in property. Landowners in Massachusetts may be more willing to grant access rights than in Rhode Island because Chapter 21, § 17, B-C relieves landowners who permit recreational access from liability of injury during a visitor's stay. Similar legislation will be re-introduced to the next session of the Rhode Island General Assembly.
Public access can also be gained when state agencies, if authorized by the legislature, exercise the powers of eminent domain, upon payment of just compensation. Among the authorized state agencies are the present Massachusetts DNR, the Public Access Board, and the County Commissioners. In Massachusetts, the Public Access Board shoulders the primary responsibility for improving access to the coastline. In Rhode Island, the Public Rights of Way Commission with the DNR has an active program for designating public access routes to the coast. These agencies should work with the coastal zone management programs to identify access points—5 mile intervals—which do not conflict with problems such as severe erosion or incompatible uses such as port or marina development. This standard must be applied judiciously because some coastal reaches may be fragile or inappropriate for recreational use, or roads and parking may be inadequate. Rhode Island has already acquired more than this standard along parts of its coast. The aim for both states is to provide ample access at reasonable intervals, with over 300 access points along SENE's coast.

Any program to increase public access is only as good as the level of public awareness, both at the site and through public information. The states have published maps and brochures describing the location and marking of access routes. Replenishable supplies of this information, supplemented with rules of behavior and good management, in town halls, libraries and post offices would help to increase use of public access routes. Further, the states should periodically assess the condition of these access routes, their markings and use, and the need for purchasing and developing additional acreage for parking.

This alternative has stronger environmental implications than the alternatives involving facilities development. However even if public rights to the foreshore and adequate access were provided, parking and the lack of beach at high tide would limit tourist crowds so that the impact on the economy, infrastructure, and resources would not be appreciable. This measure would
not meet as substantial a portion of the regional beach needs as the other alternatives, but it would effectively alleviate stresses on public beaches by absorbing local demands. The success of this alternative depends greatly on the successful local protection of beaches, coastal wetlands, erosion and flood areas, and unique natural and cultural areas.

c. Acquiring New Beaches for State Parks. The annual summer migration to the shore severely overtaxes beach facilities particularly near Boston, Providence, and Cape Cod. About 80 per cent of the shoreline is privately owned and publicly inaccessible, and much of the remainder is not beach. There are expanses of beaches along the North and South Shore, Buzzards Bay and Narragansett Bay coasts which the state could acquire and develop as regional beaches. A few areas such as the one between Marshfield and Scituate, and an area in Warwick, both appropriate for local use, are discussed in the planning area reports.

New beach acquisition and development appears to be an unnecessary extravagance, at least for the next 20 year period, despite the major social and economic benefits. Precious funds would be better spent improving conditions at existing public beaches and providing public transportation and parking facilities. However, acquisition opportunities for the long-run are discussed in Regional Recommendations 2 and 3.

Alternative Plans. The alternative measures just described can be applied to varying degrees to produce three separate plans. One would stress environmental quality. A second would stress economic development. The third would recommend the best features of each. The environmental plan for swimming emphasizes limited use of beaches by promoting public access to the restricted foreshore. The economic plan aims at maximum satisfaction of mass demands for high-intensity beach use for residents and tourists alike.
Recommendations. To meet future swimming demands the recommended plan, which is given in priority order below, incorporates both approaches.

1. Expand facilities at existing state beaches and parks. The Massachusetts and Rhode Island Departments of Natural Resources and appropriate local governments, or private beach operators, should provide increased capacity at existing beaches and acquire additional undeveloped beach areas for future swimming development and extensive recreation. Examples are Wollaston Beach and Duxbury Beach.

Agencies responsible for transportation and recreation planning and development in both states should consider the feasibility of increased public transportation and expansion of parking facilities away from the fragile beach environment with shuttle service to the beach on peak days. This procedure could be appropriate at locations such as Crane Beach and Wingaersheek Beach in the Ipswich North Shore Planning Area, Duxbury Beach in the South Shore Planning Area, Cape Cod National Seashore beaches and Narragansett Bay beaches such as Scarborough.

As a means for meeting a portion of the increased capacity, the Corps has identified several beaches for further study. Erosion control at these beaches, in some cases in combination with facilities improvement, would include a program of beach nourishment and retaining jetties. Therefore, the SENE recommendation is:

2. Study beach erosion control. The Corps of Engineers, as requested by individual municipalities or together with Massachusetts and Rhode Island Departments of Natural Resources, should control beach erosion, if justified by a preliminary feasibility study and evaluation of environmental impacts and consistency with state coastal zone management programs, at the following beaches:

- Long Point Beach
- Conimicut Point Beach
- Oakland Beach
- Island Park
- Allen Harbor Beach
- Ninigret Beach (Ninigret Conservation Area)
- East Matunuck State Beach
- Block Island Jetty Beach
- Wareham
- Warwick
- Warwick
- Portsmouth
- North Kingstown
- Charlestown
- South Kingstown
- New Shoreham
- Buzzards Bay
- Narragansett Bay
- Narragansett Bay
- Narragansett Bay
- Narragansett Bay
- Pawcatuck
- Narragansett Bay
- Narragansett Bay
- Narragansett Bay
- Narragansett Bay
- Narragansett Bay
- Narragansett Bay
Beaches marked by an asterisk should be considered for nourishment in the next 15 years. Other beaches should be considered for the 1990 to 2020 period. The needed feasibility and environmental impact studies would be similar in scope to those already conducted and approved for Revere and Nantasket Beaches.

A second investigation should be conducted for beaches which offer the opportunity for expanded use as well as for erosion control, as suggested by the following recommendation:

3. Study beach expansion. The Corps of Engineers under new authority, working jointly with the Bureau of Outdoor Recreation, appropriate state agencies, municipalities and private interests, should expand the following beaches by adding sand, if justified by preliminary studies of feasibility environmental impact and consistency with state coastal zone management programs.

- Plum Island Beach
- Crane Beach
- Nantasket Beach expansion
- Humarock Beach
- Duxbury Beach
- Plymouth Long Beach
- Slocums Neck Area
  (expansion of Horse-neck State Beach and/or Demarest Lloyd Memorial Beach)
- Ocean Grove Beach
  (Coles River)
- Touisset Point Beach

Newbury
Ipswich
Ipswich-North Shore
Hull
Marshall
Duxbury
Plymouth
Westport

Ipswich-North Shore
Boston Metropolitan
South Shore
South Shore
South Shore
Buzzards Bay
Swansea
Narragansett Bay
Warren
Narragansett Bay

Beaches close to urban and tourist areas should receive priority attention and are marked by an asterisk. Study of the beaches would consider the appropriateness of state acquisition of municipal beaches to guarantee access by residents of other areas. For some beaches where expansion and/or facility development is already justified, the recommended feasibility study would consider needs for erosion control in the context of these improvements and the resulting beach capacity. [An additional area omitted above is Napatree
Beach-Sandy Point in Westerly. State and citizen reviewers felt that this area should be retained as close to its natural state as possible and not be considered, even as an eventual possibility, as serving regional beach needs.

To provide opportunities for more remote experiences (recreational saltwater fishing, shellfishing, strolling, surf-casting) and to diminish the number of new beach acquisitions and development, the SENE recommendation is:

4. Acquire public access to the shoreline at five mile intervals. The Massachusetts Public Access Board, Rhode Island Rights-of-Way Commission and Departments of Natural Resources should acquire access points at least every five miles of shoreline, particularly in the southern portions of the North Shore, and along the coast of the South Shore, Cape Cod Bay, Nantucket Sound, Buzzards Bay, in Massachusetts, and Narragansett Bay and "South County", in Rhode Island. Massachusetts should undertake this program pursuant to enactment of legislation permitting access to the foreshore.

All four of these recommendations must be implemented fully if a substantial part of anticipated swimming demand is to be satisfied. The public access recommendation is of additional importance to surfcasting and passive outdoor recreation pursuits. It also provides equitable distribution of opportunities to enjoy coastal resources.

Boating

The Situation

SENE's 1540 miles of coastline are ragged and irregular. They offer tremendous opportunities for the recreational boater, whether he is a weekend fisherman or a blue-water cruising sailor. The difficulty, however, is that the region's 50,000 permanently moored recreational boats are concentrated in a few of the more popular harbors. When the weekend trailer-boat enthusiast descends, major boat jams develop. According to Table 6.1, about 20,000 more slips or moorings and 500 more lanes of boat ramps will have to be developed to meet anticipated demands in 1990. The 500 boat ramps needed for
smaller craft will provide about as many boating days as the 20,000 slips and moorings needed for larger craft.

This section focuses on the slips and moorings. Boat ramps will be considered in the next section on saltwater fishing. Water quality aspects associated with boating were pursued in Chapter 5.

Analysis of the SENE coastline established that as many as 16,000 additional boat slips and moorings could be developed at existing or potential marinas, yacht clubs, town docks or mooring areas. Accommodating this number would require only minor dredging at existing marinas and no additional channel improvements. These marinas act as private access points to recreational for a significant number of people.

Solutions

Alternatives. Since the potential for developing marinas and slips along the coast almost equals the demand, the issues related to recreational boating appear to focus on who and how. Both public and private sectors share a responsibility. As with most recreational activities, tastes differ. Some boaters prefer the amenities of electricity, running water and shoreline commercial development; others prefer less crowded conditions. The two principal alternatives for satisfying boating needs are (a) private investment in marina development and (b) public investment in boating facilities.

a. Private Investment in Marina Development. The capacity of private marina developers to finance marina construction, without public assistance, is limited by many problems—the high cost of credit, inadequate business management and training, competition, the seasonal nature of recreational use, resistance from municipalities, high land costs, storm damage, and high construction and annual maintenance costs.

Changes in public policy could help alleviate the problems faced by private investors. For example, the Rhode Island Department of Economic Development strives to improve the situation through loan guarantees, especially to campground developers, and with advise about locations suitable for recreational development. Perhaps the Massachusetts Department of Commerce and Development could establish a similar program. In addition, recreation entrepreneurs
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