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**MANAGING RECONSTRUCTION ALONG THE SOUTH CAROLINA
COAST: Preliminary Observations on the
Implementation of the Beachfront
Management Act Following
Hurricane Hugo**

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Introduction

When Hurricane Hugo struck the South Carolina coast on the morning of September 22, 1989, it provided an opportunity not only to test the strength of buildings and structures along the shoreline, but also the state's new Beachfront Management Act. Adopted in 1988, the act is unique in its implementation of an explicit policy of shoreline retreat. A key provision of the act prevents heavily damaged structures from rebuilding where they are in close proximity to the ocean, and specifically when they are located in the so-called "dead zone." This paper describes these and other key features of the South Carolina law, examines how these mechanisms for managing reconstruction have actually functioned, and seeks to extract tentative lessons learned from the South Carolina experience. The observations contained in this paper are drawn largely from several sets of interviews conducted in the Charleston and Myrtle Beach areas during the months of November, 1989 and January 1990 respectfully. Key individuals involved in the implementation of the act, such as S.C. Coastal Council staff and local officials (e.g. mayors, city planners, building officials) were interviewed, as well as representatives of important interest groups concerned with coastal development issues and implementation of the act (e.g. representatives of environmental groups, the real estate and development community, hotel-motel associations, and individual property owners impacted by the law). In addition, extensive information has been drawn from newspaper articles, technical reports, and other written documents. Many of the observations and conclusions cited here are tentative and will be examined in greater depth under a more detailed evaluation study recently funded by the National Science Foundation.

I begin below with a brief overview of the provisions of the 1988 South Carolina Beachfront Management Act. Following this the paper identifies some of the key administrative and policy issues confronted during implementation of the act, and then tentatively evaluates the implementation and enforcement of the act to date by the S.C. Coastal Council. The paper goes on to examine the broader questions of how effective these types of reconstruction policies are likely to be in promoting shoreline retreat and hazard mitigation, even if aggressively enforced. Finally, the paper presents tentative conclusions of the research and identifies future research needs.

The South Carolina Beachfront Management Act: Basic Provisions

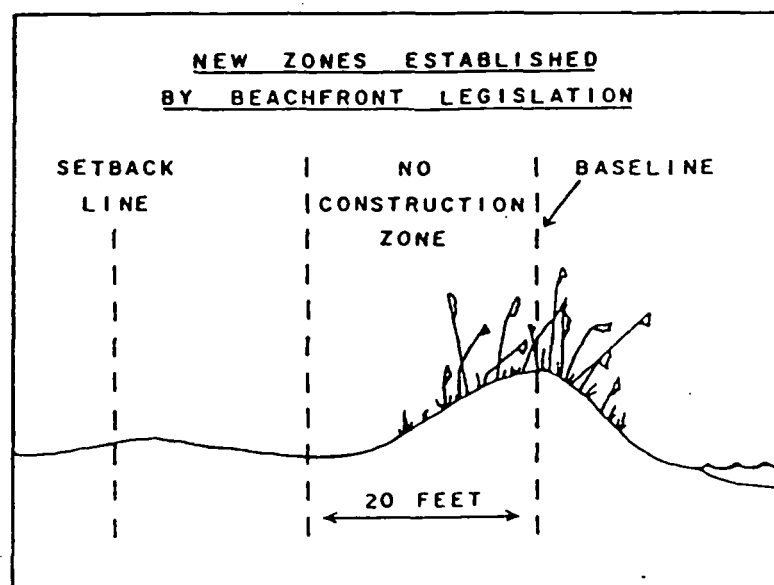
While South Carolina had a limited coastal management capability prior to the Beachfront Management Act, the passage of this legislation represented a major and significant expansion of the state's control over coastal development. The Act grew largely out of the recommendations of the Blue Ribbon Committee on Beachfront Management. The Committee's report, issued in March of 1987, strongly condemned the practice of armoring the shoreline and called for a thirty-year retreat policy, coupled with selective beach renourishment. In the words of the final report: "A retreat implemented over thirty years will allow owners of

structures sited too close to the beach to realize the economic life of their structures and adjust their plans over a reasonable 30-year time period."²

The Beachfront Management Act as finally adopted embraced a forty-year retreat concept. To achieve this long-term objective, the Act included both restrictions to new construction along the shorefront and reconstruction in the event of a damaging hurricane or other severe coastal storm. Under the law, two types of erosion zones are identified: standard erosion zones, and inlet erosion zones. As Diagram 1 indicates, within standard erosion zones, a "baseline" is first to be established, located along the "ideal" duneline (i.e. where the actual dune crest would be if the shoreline had not been altered by man).³ In the case of inlet zones, the baseline is established at the furthest landward point during the last forty years. A "setback zone" is established landward of the baseline in each of these zones a distance equal to forty times the average annual erosion rate for that particular stretch of coast. Finally, a "no construction zone" is delineated a distance extending twenty feet landward of the baseline. These three lines form the basis of the South Carolina regulatory system. (see figure 1)

New construction within these regulatory zones is significantly restricted. No new habitable structures are permitted in the twenty-foot no construction zone (or "dead zone"), nor seaward of the baseline. New habitable structures are, however, permitted within the setback zone, but they must not exceed 5000 square feet in size (inclusive of porches, decks, patios, and garages) and must be located as far landward as practicable. New erosion control devices and recreational amenities (e.g. swimming pools) are prohibited seaward of the setback line. All real estate transfers involving property seaward of the setback line must now contain a disclosure statement which indicates the relative location of the regulatory lines and the latest local erosion rates.

Figure 1



Some of the most stringent provisions of the Beachfront Management Act apply to reconstruction of damaged shorefront structures following hurricanes and other similar events (see Table 1). These restrictions to rebuilding were seen by many as a necessary component of the retreat policy. Specifically, the most controversial of the reconstruction provisions has been the prohibition on rebuilding habitable structures in the "damaged beyond repair" 20-foot dead zone. Under the Act, structures damaged beyond repair can be rebuilt in the setback zone, but they must be located landward of the dead zone, must not exceed the total square footage of the original structure, must not exceed the linear square footage along the coastline of the original structure, and must be located as far landward as possible (preferably behind the setback lines). The owner of the damaged structure is also required to renourish the beach in front of the structure on a yearly basis "with an amount and type of sand to be approved by the council, but which must not be less than one and one-half times the yearly volume of sand lost due to erosion."⁴ This requirement is dropped if the beach is already covered by an ongoing federal, state or local renourishment program. "Destroyed beyond repair" has been defined in Coastal Council administrative rulings to mean 66 and 2/3% destroyed.

Restrictions on rebuilding erosion control devices and recreational amenities are also included in the Act (see Table 1). If an erosion control device is more than 50 percent damaged, it may not be repaired, but can be replaced by a sloping revetment if it serves to protect a habitable structure and is moved as far landward as possible.⁵ Where a seawall or erosion control device protects undeveloped property it may be replaced in its original location only if needed to provide continuity to an existing seawall or erosion control device structure. Where such erosion control devices are allowed to be replaced, the property owner is required to undertake the beach renourishment requirements mentioned above for habitable structures. Also, where recreational amenities in the setback zone are damaged beyond 50%, they are prevented from rebuilding as well.

Damage to shorefront property from hurricane Hugo was, not surprisingly, substantial. Much of this property -- homes, commercial structures, seawalls and recreational amenities such as pools -- was damaged to such a degree that the Beachfront Management Act's restrictions on rebuilding became applicable. It was initially estimated by the Coastal Council that 213 structures, located at least partially in the dead zone were damaged beyond repair. This figure was later adjusted to 159 structures. Many more seawalls and pools were also damaged beyond the Act's damage thresholds. The types of damages along the South Carolina coast differed considerably between the Myrtle Beach/Grand Strand area to the north, and the Charleston area to the South. In the Charleston area, most beachfront damage occurred in the Towns of Folly Beach, Isle of Palms and Sullivan's Island and consisted of damage primarily to single family beach homes. To the north, beachfront damages were heaviest on Pawleys Island and Garden City (with the Horry County portion of Garden City receiving much greater shorefront damage than the Georgetown County portion). Substantial damages were incurred by hotels and motels in the Grand Strand area (and their accompanying pools and seawalls), as well as to single family beach homes.

Table 1**Rebuilding Restrictions Under the South Carolina
Beachfront Management Act**

		Dead Zone	Setback Zone
Habitable Structures	Damaged Beyond Repair (> 66 2/3% damaged)	<ul style="list-style-type: none">• No reconstruction allowed	<ul style="list-style-type: none">• landward of dead zone• ≤ total square footage of original building• ≤ linear square footage along shoreline• As far landward as possible of original structure; no further seaward• Annual beach renourishment• Repair permitted by local regulations• conformance with erosion control requirements (below)
	Reparable (< 66 2/3% damaged)	<ul style="list-style-type: none">• ≤ total square footage of original building• ≤ linear footage along coast of original building• No further seaward of the original building• Repairs permitted by local regulation	<ul style="list-style-type: none">• same as for dead zone
Erosion Control Devices	> 50% damaged	<ul style="list-style-type: none">• can only replace with sloping revetment• As far landward as possible• No further seaward than original vertical wall• Annual beach renourishment Where undeveloped property, can replace where needed for continuous structures. Otherwise must protect habitable structure	<ul style="list-style-type: none">• same as for dead zone
	< 50% damaged	<ul style="list-style-type: none">• Can repair	<ul style="list-style-type: none">• can repair
Recreational Amenities	> 50% damaged	<ul style="list-style-type: none">• cannot repair	<ul style="list-style-type: none">• cannot repair
	< 50% damaged	<ul style="list-style-type: none">• can repair	<ul style="list-style-type: none">• can repair

Post-Disaster Implementation of the Beachfront Management Act: How Successful?

Preventing the reconstruction of buildings and other investments following a hurricane or other major storm has been an often-discussed coastal management tool and a potentially important component of a strategy of gradual shoreline retreat.⁶ When such events are severe they represent opportunities to reorient land use and development away from high risk shorelines. In devastated beachfront communities from Charleston north to Myrtle Beach, Hurricane Hugo has provided an opportunity to assess the performance of South Carolina officials at enforcing these new restrictions and the success of these restrictions at accomplishing their desired objectives.

How effectively and successfully implemented the Beachfront Act has actually been could be evaluated in one of several ways. One way is to evaluate the extent to which the coastal council has been able to effectively enforce the Act as currently written. Have state officials been able to enforce the strong provisions of the dead-zone and other provisions restricting rebuilding along the coast. Moreover, what sort of technical and political problems have been confronted in implementing and enforcing the Act. At perhaps a much broader level, one could assess the extent to which the theory and concept behind the Act is valid and useful. Will the dead zone and other rebuilding restrictions actually result in the kinds of long-term retreat proposed by the South Carolina Blue Ribbon Committee? Each of these questions will be taken up briefly here, acknowledging that these observations are very tentative and that the author is just beginning a more detailed research project to more fully answer them.

Difficulties in Managing the Reconstruction Process

The South Carolina Coastal Council has faced the Herculean task of implementing a fairly complex reconstruction permitting system before many of the most basic underpinnings of the system were fully in place. When the storm hit the area some of the most basic prerequisites for implementation were not present, including the final ortho-quad maps necessary for determining the location of buildings relative to regulatory lines. These maps were received, however, within a few days following the storm and did not seem to substantially slow the Council's progress.

To the Coastal Council's credit many of the specific administrative rules and procedures used in managing reconstruction had already been established prior to the Hurricane. For instance, the Council had devised, in advance a point system to be used by damage appraisers in determining the extent of structural damage (e.g. whether or not a home is damaged beyond repair). Table 2 presents the system developed by council staff to be used in evaluating habitable structures. For instance, if the appraiser finds that the foundation or pilings for the structure have remained intact and functional, then 25% of the points are assigned for that particular building component. If a structure

receives more than 33 1/3% points under this system it is deemed to be repairable. Despite this attempt to lay out a fairly rational methodology for damage assessment, problems do seem to have arisen (discussed below).

Table 2

<u>Building Components</u>	<u>Percentage of Total Structure</u>	<u>Percentage Structure Undamaged</u>
Foundation or pilings	25	
Exterior and interior load bearing walls and beams	25	
Roof system - joists (rafters, decking and coverings)	15	
Flooring	5	
Doors and windows	5	
Decks, porches or stairs	5	
Electrical, plumbing, heating and air systems	10	
Septic tank, drain fields or	<u>10</u>	—
	100%	Total —

Furthermore, after Hugo struck, the Coastal Council did act quickly to adopt certain general permits and emergency orders to facilitate and expedite the rebuilding process. These were brought before the Council within five days of the storm, and council staff have indicated their experiences as following the January 1987 winter storm were helpful in preparing them for Hugo. The rationale behind the issuance of general permits was the need to relieve the relatively small council staff from having to review hundreds of rebuilding requests that would ultimately be approved anyway. The Council also instituted a special emergency permit process designed to expedite the processing of reconstruction permits (due to expire in September 1990).

Despite the efforts of the Coastal Council to establish certain administrative interpretations and procedures prior to this disaster event, when Hugo hit the administration of the act was clearly still in its infancy and there were many things that were not yet settled. This has resulted in substantial confusion about what property owners can and cannot do within the beachfront property, and considerable frustration with a system perceived by many to be a

"moving target." Some of the specific elements contributing to this confusion are discussed in more detail below. The occurrence of a major hurricane only a few months after the effective date of the Beachfront Management Act has been the cause for much of the post-disaster confusion. If the storm had occurred four or five years down the road many of the enforcement difficulties faced by the Coastal Council might have been avoided. There were many specific situations concerning reconstruction that the Coastal Council did not, and probably could not, contemplate prior to the actual storm event. Consequently it was forced to address these questions and issues along the way with administrative interpretations and case-by-case decision making. A number of these situations are described below.

Coastal Council Redevelopment Decisions: Necessarily Flexible or Overly Lenient?

There is a considerable difference of opinion among observers about how aggressively and stridently the provisions of the Beachfront Act have been enforced following the storm. The hurricane clearly put the Coastal Council in the position of implementing certain provisions of the Act -- the "dead zone" restrictions in particular -- which were clearly unpopular with many coastal factions (oceanfront landowners, beachfront commercial establishments, local public officials, among others). Shortly after the hurricane there were calls to suspend or even repeal the Act. One legislator called for a special session of the S.C. General Assembly to consider such actions. Largely because of support expressed for the Act by Governor Campbell these proposals were not seriously considered. However, the Coastal Council was faced with enforcing regulatory provisions which the state legislature was already in the process of substantially modifying; indeed, essentially eliminating, in the case the dead zone restrictions. A bill proposed by Sen. Waddell and others (Senate Bill 391) had actually passed the Senate in May 1989 prior to Hugo -- a bill which would have essentially eliminated the 20 foot no construction zone, and would have changed the 40-year setback zone to a 30-year setback zone. Coastal Council staff interviewed for this research indicated that they did not believe they could "second guess" what the State legislature would do, but rather could only enforce the law as it was currently on the books. Most council staff did not believe that the stringency of their enforcement was in any way affected by the knowledge that the law was in the process of being amended.

Most outside observers have a somewhat different view of the council's actions in the post-Hugo period. Both supporters (e.g. members of the environmental community) and detractors of the Act (e.g. beachfront propertyowners) appear to agree that the Council and its staff have sought to be as lenient and flexible as possible in regulating reconstruction -- what the Myrtle Beach Sun News aptly described as an "elasticizing" of the intentions of the Act.⁷ Members of the environmental community accuse the council and staff of caving-in to propertyowners, and of failing to enforce the letter of the law. They believe that this intentional loosening of restrictions on rebuilding is a reflection of the belief by Council officials that if they were too stringent in their

enforcement of the Act that this would further galvanize opposition to beachfront management in general, and that the entire program might be jeopardized. Property owners and representatives of beachfront businesses, on the other hand, have generally applauded the flexibility of the Council, believing this stance to be entirely reasonable given the financial hardships and trauma that beachfront owners have been subjected to.

Some of this tendency to be as lenient as possible, perhaps a great deal of it, is likely a reflection of the fact that this high level of damage happened so soon following the adoption of the new beachfront rules. Clearly the Beachfront Management Act represented a fairly significant "changing of the rules," but did not, as it turned out, allow the thirty-years or so amortization period contemplated by the Blue Ribbon Committee (see earlier quote). There also appears to have been genuine surprise on the part of many coastal residents -- public officials and the general public alike -- about the requirements of the Beachfront Management Act, the dead zone prohibitions in particular.

Regardless of the motivations of the council, the pattern of post-disaster policymaking does appear to reflect a loosening of the reconstruction restrictions in a number of respects. A number of post-disaster examples can be cited. One major example is the Council's decision concerning the Kingfisher pier seawall. In January of 1990 the Coastal Council voted to allow the reconstruction of a damaged seawall (damaged beyond 50%) at the Kingfisher pier in Garden City. The seawall did not protect a structure but rather protected only a parking lot. Critics of this action have argued that the Coastal Council's actions directly violate the intentions of the Act of allowing beach areas to return to a natural and unarmored state. The Council while deciding that indeed the seawall did not protect "developed" property, approved its reconstruction based on the argument that it was simply a segment of otherwise continuous seawall (see earlier discussion of the restrictions to rebuilding seawalls). To many who are familiar with the seawall this seems a contrived argument, as the Kingfisher segment is not situated between an unbroken line of seawalls, but rather comprises the southern end of a seawall which itself does not extend very far north. Coastal Council staff recommended against the permit, and council member Wes Jones later described the action as a "dangerous precedent."⁸

Another example to some that the Coastal Council is being too lenient, involved propertyowners who wished to replace structures located in the dead zone, even though they had not been damaged beyond repair. Specifically, the Council was faced with a request from the owner of a 3000 square foot apartment building located in the dead zone, who wished to replace it with a 1500 square foot house. Council staff supported a policy which would allow the owner to replace the damaged building with a smaller structure, arguing that if approval was not given the owner would simply repair the existing structure, and perhaps even reinforce it -- a result seen to be contrary to the retreat emphasis of the Act. The Coastal Council adopted in January 1990, an emergency order which allows replacement of structures in the dead zone which were not damaged beyond repair, if: they are no further seaward than

the original structure; no wider along the oceanfront than the original structure; are located as far landward as possible; and the replaced building is one-third smaller in square footage than the original or no more than 2000 square feet, whichever is greater.

To some this "replacement building" emergency order represents another example of the relaxing of rebuilding restrictions. It is evident that there are many structures that have received damage very close to the two-thirds standard used to define "damaged beyond repair." In those cases, it often makes more financial sense for the propertyowner to build a new structure than to repair the existing one. While the Council and its staff have supported allowing such propertyowners to build these new structures, a strict interpretation of the Act would appear to prohibit this. Council staff have argued that the outcome is positive because it results in smaller structures located further from the ocean. Opponents of this policy could argue that in many cases if the council prevented replacement, existing heavily damaged structures would be abandoned. In any event, if in many cases it is more economical to replace a structure than to repair it, this suggests to some observers that either a two-thirds damage threshold is too high, or there is considerable leniency provided in such damage assessments. (e.g. a structure assigned a 65% damage rating rather than the 75% or 80% it perhaps deserves).

Confusion Over the Regulatory Lines

The status of the regulatory lines has also been the source of much confusion following the storm. Had the storm occurred even one year later, the setback and dead zone lines would have been relatively fixed and finalized. As it was the lines in place when the storm struck were officially considered "interim lines" and will not actually become final until July of 1990. This has created some degree of uncertainty both for coastal council regulators and for propertyowners. Initially the lines were established by consulting engineering firms. Under the act a beachfront monitoring program was established to collect data on current rates of erosion (i.e. the establishment of beach monuments). By law the Coastal Council is required to adjust its initial baselines to reflect information collected from its monitoring program. Consequently, the Council has in some places modified the baselines several times, even before adoption of the final lines.

This has contributed to the impression of a regulatory moving target. While council staff may tell a homeowner one day that she or he cannot rebuild their home because it is in the dead zone, the line may be modified the next, excluding the previously affected home. For instance, the Council recently eliminated the setback zone entirely in Pawleys Island and these types of line modifications are occurring each month. The lines are also subject to appeal by landowners and local governments, and significant modifications to the lines have occurred in response to these appeals, both before and after Hugo. There is the perception on the part of some that such modifications are again the result of the Council's desire to be as flexible and lenient as possible.

Part of the problem with the regulatory lines is the methodology used to draw them. A fairly complex methodology is involved, particularly with respect to the standard erosion zones. This methodology first entails analyzing shoreline profiles along coastlines unaffected by seawalls, averaging these profiles, and constructing an "ideal profile." The latter is then superimposed on developed shorelines, and the baseline is established at the ideal dune crestline. A number of individuals interviewed expressed concerns about the accuracy of this methodology. Even supporters of the Act admit that, in the words of one observer, the lines are the result of "alchemy not science." The methodology requires prediction about what sand and water will do over time and most agree involves considerable interpretation and educated guessing. This tends to open up the methodology to sincere differences of opinion about where the lines should be drawn.

The system of establishing and amending the regulatory lines has also led to perceptions on the part of some that because the methodology is somewhat "loose" it has allowed the Coastal Council to adjust them for political or other reasons. Some observers have argued that the lines have even intentionally been moved by the Council in order to minimize the impact on property owners. In a recent letter in the Charleston News & Courier, one citizen contends:

Since Hugo, the Coastal Council has scrambled to adjust baselines so that the actual amount of property stolen can be minimized. This has been done especially in wealthy areas like Pawleys Island, where well-connected owners have the financial resources to mount successful challenges to the act. Council's engineers have exercised liberal discretion (which the act does not allow) in condemning property to go as few oxen as possible and forestall the public outcry against the theft of hundreds of millions of dollars worth of private property.⁹

The system for establishing lines has also been criticized by some for its failure to explicitly consider the impacts of hurricanes and major storms. The methodological basis for the lines is in theory long-term erosion patterns, and this does not incorporate specific consideration of such storm impacts. This to some seems irrational, and it has been suggested by at least one member of the environmental community that a triggering mechanism be incorporated into the system so that the lines must automatically be redrawn where storm-induced erosion exceeds a certain pre-established amount or percentage.

Conflicts Between Local and State Regulations

Some of the frustration felt by property owners has been further exacerbated by local zoning regulations which also restrict reconstruction, and which vary greatly from place to place. Whether a beachfront property owner is able to rebuild outside of the no construction zone will often depend on local

land use restrictions, and it is interesting to see how different jurisdictions have implemented their zoning ordinances in light of their need to move structures landward. Georgetown County, for instance, has a 25-foot frontyard setback requirement which has served to restrict the extent to which beachfront propertyowners are able to move their structures landward and out of the no construction zones. Several propertyowners have sought variances to this restriction but have been so far turned down by the county. For landowners who believe that this completely denies them use of their property it raises the interesting question of who ought to be sued. Is it the county's frontyard setback or the state's dead zone restrictions which are preventing reasonable economic use? In the Horry portions of Garden City, on the other hand, propertyowners are receiving some relief from these local setback requirements. Under normal conditions Horry County requires structures to have a 20-foot frontyard setback, but structures damaged by Hugo must only meet 50% of this and other zoning setbacks. Also, if the owner has to construct a more vertical structure to achieve the same amount of square footage as existed before the storm he or she is allowed to do so, even if the resulting structure exceeds the 35 foot height limit.

Another example of a potential conflict between the requirements of the Beach Act and local zoning provisions, again contributing to propertyowner confusion, arose in North Myrtle Beach concerning repair and replacement of pools. Under the Coastal Council administrative rules, if a pool is not damaged beyond 50%, and thus is repairable, the propertyowner can elect to replace the pool if he or she so desires (i.e. similar to the "repairable building" standard mentioned earlier). Apparently for pools it is often easier to replace a pool outright than to attempt to repair it. However, under North Myrtle Beach's zoning ordinance if the owner destroys the pool the use becomes nonconforming and the owner is prevented from rebuilding it. The city deliberated at length about this issue has decided that to prevent a propertyowner from rebuilding a pool (i.e. replacing the pool with a new one) for which a permit from Coastal Council has been received, would be to risk lawsuits. The city thus appears willing to allow the practice even though contrary to its ordinance.

Many coastal localities have faced their own unique questions concerning rebuilding following Hugo. Myrtle Beach, for instance, is still debating what to do about reconstruction of parking lots, grassy yards, gazebos, and other improvements by hotels which have for years been located on the publicly-owned beach. The city owns significant amounts of the dry sand beach as a result of a donation of land in 1939 by Myrtle Beach Farms. While the city has had a policy on the books for several years to gradually retrieve these lands, stiff opposition from hotel interests has made this difficult in the aftermath of Hugo.

Questions About Damage Assessment

The process by which damage assessment has been undertaken has been questioned by some, particularly in light of the relatively low number of

structures (159) classified as "damaged beyond repair." While admittedly the established 66 2/3% damage threshold is higher than the 50% threshold used by FEMA and other localities and states, it does appear that again the Coastal Council has sought to be as flexible as possible, erring on the side of the property owner where possible. For instance, while the law does not require it, Coastal Council will at the property owners request have a second damage assessment prepared for a structure. An interview with the chief permitting officer for the Myrtle Beach Coastal Council Office indicates that of these second assessments a fairly high percentage result in a change in the permit decision (e.g. it is determined that a structure is no longer damaged beyond repair). For damaged pools and seawalls in North Myrtle Beach, for instance, it was estimated that reassessments lead to a reversal of the original permit decision in 30 to 40% of the cases. (The procedure for reassessment is somewhat different for seawalls and pools, with the property owner given the right to hire his or her own consulting engineer to conduct their own independent assessment; if the property owner's engineer finds damage less than 50%, the Council's consultant and the property owner's consultant together select a third engineer whose assessment becomes binding on both parties).

These high rates of reversal suggest either that Coastal Council appraisers are giving into the pressures of propertyowners, or that the methodology is so subjective that it is open to considerable interpretation. There is a perception held by many observers that the assessment process has been quite loose. The Mayor of Folly Beach in an interview with the author, for instance, indicated that he could not believe some of the structures the Council appraisers considered not to be "damaged beyond repair." He and others indicated that in many cases there really wasn't much left of some of these structures. Even structures which had been completely detached from their foundations and had been transported some distance away, were allowed to be returned to their original sites and repaired as long as they did not exceed the 66 2/3 threshold.

The "Takings" Problem: Where to Draw the Line Between Public and Private Rights

Perhaps the most significant deficiency of the Beachfront Management Act has been the failure to adequately deal in advance with the potential "takings" question. Specifically, what would the state do in situations where as a result of the dead zone restrictions landowners were denied all reasonable economic use of their beachfront land. And, if compensation by the state is deemed by the courts to be necessary, where would these funds come from? The failure to adequately discuss and deal with these questions was consistently cited by those interviewed as the single-most important failing of the Act.

Even before the hurricane hit, the Act was generating takings challenges. One in particular was a suit filed by David H. Lucas, who owned two small lots in the Wild Dunes development in Isle of Palms. Represented by a Charleston law firm, Lucas claimed that inverse condemnation had occurred because the

Act prohibited the construction of anything on the two parcels (they were both located seaward of the base line in an inlet erosion zone).¹⁰ The courts in this specific case found in favor of Lucas and awarded \$1.2 million in compensation. And while the state has appealed the decision, most legal authorities believe that the decision will hold. While the award to many seems high, it does indicate the potential amount of financial liability created for the state by the dead zone provisions. Awards of the Lucas magnitude do not seem inconceivable, moreover, along a coastline where 10,000 square foot oceanfront lots typically go for between \$150,000 and \$500,000 apiece.

The Lucas decision is important in illustrating the potential cost of buying out propertyowners who are prevented from rebuilding in the dead zone. While most expect that a large number of the 159 buildings damaged beyond repair and located in the dead zone will be able to build back in some form (e.g. many lots are deep enough to rebuild behind the dead zone line, perhaps requiring a smaller home) if as many as one-third will not be able to rebuild, the potential cost could be as much as \$50 million. And, as of January 1990 there had been 45 petitions filed with the circuit court claiming a government taking without compensation as a result of rebuilding restrictions. As noted earlier, a number of landowners have appealed the lines as well, and many of them can be expected to file similar circuit court petitions should they be unable to get the lines redrawn in their favor. And, it is not at all clear (as the discussion later will show) that the public will get much for its money should compensation eventually be paid.

This issue raises fairly fundamental philosophical questions concerning where the line is drawn between public and private rights. Coastal Council attorneys (and staff) are appalled at the possibility of having to compensate in a situation like the Lucas case where, to allow any form of construction, would seem intuitively to infringe on the public's beach. Cotton Harness, chief attorney for the Coastal Council, wonders why the government should be forced to pay someone for not doing something they should not be permitted to do in the first place.

Similar lawsuits have been filed by hotel and motel operators along the Grand Strand seeking permission to rebuild damaged pools and seawalls. At issue was the manner in which damage assessments were made for seawalls. The propertyowners have contended that council appraisers must consider the entire seawall structure, even that portion underground and out of sight, when making their assessments. A South Carolina circuit court, apparently impressed with the arguments of hotel-motel operators about the need to complete repairs before the tourist season, issued an opinion in January allowing ten plaintiffs to rebuild their walls as long as each posted a \$10,000 bond, to be forfeited in the event that they eventually lose their arguments. The Coastal Council appealed this opinion to the State Supreme Court, arguing that such a decision would substantially undermine their ability to implement the Act. In February, the Supreme Court found in favor of the Coastal Council, reversing the lower court's opinion. However, by that time one of the propertyowners had already rebuilt his seawalls at two hotels. The Coastal Council promptly

ordered the walls to be removed, and when they were not, began imposed \$2000 per day fine on the hotel owner. However, the original circuit court judge eventually decided that the propertyowner could keep the walls until the case is decided later this spring.

Arguments Defending the Dead zone Restrictions

Coastal Council attorneys have used several lines of argument in defending the dead zone restrictions as legitimate police power regulations that do not require compensation. One argument, though infrequently used by the Council, is that rebuilding should be prevented in these oceanfront areas because it infringes on the public's beach -- these public rights established through the common law doctrine of "customary use." This doctrine argues that as a result of centuries of use of the dry sand beaches by the public they have essentially acquired ownership rights. Interestingly, this doctrine was the basis for similar rebuilding restrictions imposed on Galveston Island, Texas, following Hurricane Alicia in 1983. Here, this doctrine has been used to establish the public beach as all land seaward of the first line of vegetation (these rights were codified under the Texas Open Beaches Act). Because the Hurricane moved this line of vegetation substantially landward many propertyowners found that their damaged structures were now seaward of the line and thus on the public beach. The Texas Attorney General's office moved quickly to prevent reconstruction of heavily damaged structures (damaged to greater than 50%) without provision of compensation. The Texas Supreme Court later upheld these actions. Because of differences in the common law histories of Texas and South Carolina, this customary use doctrine appears not to be as applicable to South Carolina.

The primary argument put forth by the Coastal Council in defense of the dead zone prohibitions is based on the fundamental public interest served by these restrictions. Specifically, Council attorneys argue that the courts in decisions like the Lucas case are inappropriately mixing public police powers and eminent domain requirements, and that when public police power regulations are intended to protect public health and welfare, the extent of property value diminution is not determinative. Council attorneys argue that regulating oceanfront development is essential to protecting the public's welfare. The actions of the Coastal Council under the Beachfront Management Act do not take property for a public purpose, but rather present private use of land which is harmful to the public interest. As argued by the Council before the S.C. Supreme Court on appeal of the Lucas decision:

"There is no 'taking' for public use here, but instead a classic land regulation aimed at preventing use of Respondent's [Lucas] property in a way that is harmful to the general public. There can be no question that the 1988 Beachfront Management Act is a valid exercise of police power protecting significant public interests from ... ill-planned development ... Based on the foregoing, it is evident that the Court did not properly distinguish

between a valid exercise of police power and an exercise of eminent domain, and assumed damages were appropriate merely because a diminution in the value of the property was shown. Such a conclusion fails to weigh the State's interest, and is counter to all precedent."¹¹

The public's health, safety and welfare is protected by these types of oceanfront restrictions for several reasons. They prevent the location of people and property in highly dangerous areas, prevent actions which would create considerable public expense (e.g. in the form of emergency public relief, public subsidies for rebuilding and recovery from hurricanes, public beach renourishment where development accelerates or exacerbates erosion) and public harms (e.g. beachfront homes acting as battering rams, destroying or damaging the beach and dune system). Just as we might prevent people from building homes on high slope terrain or on a seismic fault line we might also prevent them from locating in particularly vulnerable oceanfront locations. Protecting the beach and dune resource, furthermore, is important to preserving the state's tourism industry, to preventing the need for future costly renourishment projects, to preserving the recreational public beach, and to preserving habitat for plant and animal life. "Clearly, the public purposes of preservation and retreat are so important that preventing Plaintiffs [Lucas] from building on their lot should not amount to a taking."¹²

Several state cases are cited in defense of the Council's opinion, notably the opinion of the South Carolina Supreme Court in Carter v. S.C. Coastal Council. This opinion upheld the Council's actions preventing a private land owner from filling and raising the elevation of approximately 5.3 acres of marsh on Edisto Island (in Colleton County). The landowner had claimed that failure to issue a permit to allow the filling constituted a taking. The court, however, concluded that the council was merely preventing the "detrimental affect that the uncontrolled use of coastal wetlands would have on the public welfare."¹³

Council staff has also challenged the contention of propertyowners like Lucas that the "highest and best use" of their land is indeed residential development, and that council setback regulations have denied all reasonable economic use of the land. Taking the second point first, Council staff argue that preventing construction of a permanent residential structure does not preclude all economic use of the land. The property owner can still erect a temporary structure, and can use the property for recreation, camping and other similar activities. Also, Council has presented evidence that even when development is precluded there is a market value for the land, in that adjacent landowners could wish to acquire the land for views or beach access. On the first point, council attorneys have argued that the sites in question are highly dynamic beach and dune environments and as such permanent residential development is not the highest and best use. Moreover, the propertyowners should have had, based on these natural characteristics, no expectation that they would be able to build here.

"...There can be no justified expectation to build on property unsuited in its natural state for construction of a home. Beachwood East subdivision is located on shifting sands and subject to ongoing serious threats of erosion. Given the fact that the property is unsuitable for building and that existing neighboring construction does not legitimize the Respondent's [Lucas] to build on the subject lots, he totally failed to show that he has been thwarted in this substantial, justified expectations concerning the property ... The factual situation here is exactly as in Carter, where the court essentially recognized no justified expectation to fill marsh owned by the Plaintiff. The highest and best use of marsh/wetlands was to leave it in its natural state and here the highest and best use of the Respondent's property is to leave it in its nature state as well... In this case, there is a current unjustified expectation to build upon property unsuited for building, regardless of what the Respondent paid for the property."

Arguments Against the Dead Zone Restrictions

Opponents of stringent rebuilding restrictions often talk of lost tax base and impacts on the commercial economy of beach communities. Is this not after all the reason why people are attracted to such beachfront communities in the first place, to be right on the ocean? Does this not amount to killing the golden goose? Does tourism demand that hotels and development be right on the water? Will people stop coming to the South Carolina coast if they are required to walk an extra forty or fifty feet? Proponents, on the other hand, seem to hold a more fluid theory of coastal economic value. They argue that preventing reconstruction in the dead zone does not diminish the overall economic "value" manifest in coastal areas but rather shifts it landward somewhat. Empirical evidence would seem to support this -- in highly erosive barrier island situations, where an oceanfront row of houses disappears over time, and the second row becomes the oceanfront row, the value of these properties increases accordingly. This redistribution of property values may, of course, suggest the need to find certain mechanisms for requiring those landowners benefitting from these natural changes to help cover the losses incurred by those harmed by them (e.g. perhaps some sort of special oceanfront tax?).

The constitutionality of the dead zone restrictions aside, many South Carolinians have been troubled by the unfairness of preventing a propertyowner from rebuilding without provision of just compensation. This line of argument has taken several directions. Affected propertyowners have often claimed that their life savings were tied up in their beachfront lots and while they had foreseen the possibility of a hurricane, they had not imagined that the state would prevent them from rebuilding. Many have expressed the "expectation" that once allowed to build and live on the beach they would always be allowed to do so, provided sufficient dry beach existed. Many have argued that the passage of the Beachfront Management Act amounts to an unfair changing of the rules of the game. It is one thing, they say, to impose these coastal

regulations on new construction, but another thing entirely to apply them retroactively to existing coastal development. In the words of the mayor of Folly Beach, this is like "telling someone with a brick house that now their house must be made of wood."

The Role of Section 1362

The FEMA Section 1362 Flooded Property Purchase Program is one possible answer to the compensation problem, and is being actively pursued in several localities, including Garden City, Folly Beach and Pawleys Island. But 1362 and the general notion of converting damaged stretches of the shoreline into beach access areas is not uniformly favored by local communities. Pawleys Island is a case-in-point. Here the town council went through a heated debate over the issue, with the mayor spearheading opposition to the project. His position eventually prevailed and the town has officially chosen not to participate in 1362. The general sentiment of many on the island appears to be concern over attracting more visitors and beachgoers, and the noise, traffic, crime, etc. that might accompany it. Outside observers have accused Pawleys Island of being exclusionary. The mayor characterizes the local sentiment as being one of not wanting to see any change. Some have accused the mayor of personally sabotaging the proposal because he owns a second row home behind and adjacent to the proposed 1362 site (i.e. and does not want to personally put up with noise, traffic, etc.).

Furthermore, FEMA has decided that it will not provide 1362 funds to buy-out coastal propertyowners who will be unable to build back anyway under state restrictions. One site in Garden City (Georgetown County) would have included five adjacent propertyowners in a 1362 project, converting a stretch of shoreline into a public beach access point. But FEMA recently rejected the project because there was already sufficient land for the propertyowner to build back.¹⁵ Should the propertyowners later be able to secure necessary state and local permits to rebuild their homes (a setback variance from the county might provide sufficient room), then FEMA might reconsider the proposal. A similar proposal for a 1362 site on the Horry County side of Garden City was recently approved by FEMA as a result of the County cutting its frontyard setbacks in half, which thus permitted reconstruction. FEMA has made it clear, then, that 1362 funds will not be helpful in providing compensation to propertyowners prevented from rebuilding under laws such as the Beachfront Management Act.

Efficacy of the Reconstruction Policies in Concept

Even if the state is able to prevent the rebuilding of structures in the dead zone, either by compensating these property owners or through uncompensated regulation, what effect will this have on the beach landscape? Will the South Carolina Coastline be substantially safer as a result of the Beachfront

Management Act? As currently enforced by the S.C. Coastal Council the rebuilding restrictions will not likely change in a substantial way the beachfront landscape. In the first place, at the most 159 lots may be vacant or unbuildable as a result of the dead zone restrictions (many of these propertyowners will of course be able to rebuild behind the line). Distributed over a long coastline, this does not suggest a great impact. An analysis of the pattern of shoreline damage, and the location of lots where structures have been damaged beyond repair, bears this out. These potentially buildable lots are scattered up and down the coast, often standing alone in an otherwise developed area, or in small clumps of three to five contiguous or nearly contiguous lots. For instance, on Pawley's Island there is one stretch of shoreline where five heavily damaged lots are contiguous (i.e. where structures have been declared damaged beyond repair). Often, however, the lots are scattered throughout and among otherwise undamaged areas. The occasional vacant lot, or even two or three together, will not, it is argued by many, have much effect in changing the coastal landscape.

These lots may, however, provide the opportunity for badly needed public beach access points and preventing reconstruction in these areas may protect such opportunities. And, preventing rebuilding in areas where the shoreline remains relatively natural and undeveloped may have potential for promoting a safer pattern of development. To many opponents of the dead zone restrictions, however, even these benefits would not be great enough to justify the tremendous public expense, if in fact the state ends up having to provide compensation as the current legal decisions appear to suggest. To many, the monies could be better spent on beach renourishment.

The practice of preventing reconstruction on scattered lots is also seen by some as inherently unfair. Engineered high rise hotels and condominiums in the dead zone were generally not heavily damaged, and certainly would not likely approach the two-thirds damage threshold. Thus while hotels and larger structures were left standing, and thus allowed to continue encroachment on the beach, heavily damaged smaller structures have been prevented from rebuilding. This creates a situation where certain types of housing are more adversely affected by the Act than others.

The fact that the storm had relatively little impact on large engineered structures (e.g. high rise condominiums) raises some basic questions about the ability of reconstruction restrictions to ever do much to change the beach landscape in intensely developed areas like Myrtle Beach. Hurricane Hugo (a category IV event) shattered the illusion that a large storm could "wipe the slate clean." Such larger engineered structures will clearly have to be dealt with in other ways (such as through renourishment). It reinforces, of course, the sense of importance of keeping such structures off the beachfront in the first place -- adding additional support for the square footage cap imposed within the 40-year setback zone. The problem of what to do about large, engineered structures further highlights the general difficulty of attempting to manage the shoreline after substantial development has already occurred. Obviously, the most effective approach to managing the South Carolina shoreline is to prevent

bad development patterns *in the first place*. Reconstruction policies can only accomplish so much.

Some questions also remain about the ultimate effect of the Beachfront Management Act on seawalls. While vertical seawalls damaged more than 50% may not be rebuilt, recall that they can be replaced with sloping revetments. Originally these revetments could be substantial wood or concrete structures. Many of the large concrete structures built under this standard, however, were clearly stronger and more permanent than the vertical walls they replaced. To the Coastal Council's credit these concerns led to a moratorium on sloping concrete or wooden seawalls, now allowing only rock revetments (deemed to be less permanent).

Long-term Effects on Coastal Building Practices

Despite the implementation and enforcement problems identified here, the ultimate result of the act will likely be positive, and people and property will be forced to move back from the ocean. The exact extent of such shifts remains to be seen and will be the subject of future research. However, it is already evident that many buildings and structures (including seawalls, pools, etc.) have relocated further landward, numerous vertical seawalls have been replaced with less-damaging sloping rock revetments and some seawalls will not be allowed to be rebuilt at all. All habitable structures damaged beyond repair must be moved as far landward as possible, even those that were already landward of the dead zone. Moreover, the Beachfront restrictions have prevented the kind of intensification of development and land use that often occurs as result of reconstruction from a disaster like a hurricane.¹⁶ In most cases rebuilt structures are not allowed to exceed their previous square footage. In many cases, as a result of dead zone and local zoning restrictions, replaced buildings are certainly smaller in size. Furthermore, if these types of incremental changes are projected into the future the long term impacts on coastal building patterns may be substantial (e.g. as the state experiences future storm and erosion events like the 1987 winter storm).

The more indirect effects on building practices along the coast are also important and though more difficult to document at this point in time should nevertheless be highlighted. The prohibition on rebuilding structures damaged beyond repair in the dead zone, and the restrictions on rebuilding seawalls and pools, will likely have the positive side effect of encouraging more responsible future decisions about shoreline development. It has been speculated that if a prospective homeowner knows he or she will not be able to rebuild a vertical seawall, or will perhaps have to commit to long term beach renourishment eventually, or perhaps relocate entirely should the habitable structure be destroyed beyond repair, they will be less inclined to buy a home close to the ocean. Developers in the long term will be more inclined to promote projects that will respond to these consumer concerns, and so on. This phenomenon was aptly described by one person interviewed as a "psychological trickle-down effect." The act and its implications do appear to be topics that housing and

property consumers are beginning to pay more attention to. This was brought home recently when visiting a major real estate firm in the Pawleys Island area. This particular agency had pinned together coastal council maps for the entire coastline of Pawleys Island showing the setback and dead zone lines. The lines were a curiosity for several prospective buyers visiting this particular office while I was there.

These types of indirect effects on market demand and development practices may be mitigated to some extent by the eventual compensation of damaged propertyowners (i.e. if one knows that he or she will be given fair market value if prevented from rebuilding in the future, then why worry about purchasing such a vulnerable structure/lot?). Moreover, the perception that the Coastal Council is bending over backwards to accommodate oceanfront property owners seeking to rebuild will also tend to diminish this effect.

Elevation Requirements and Other Significant Improvements in Coastal Safety

In terms of large short term improvements in the safety of coastal populations in South Carolina as a result of rebuilding restrictions following Hugo, some of the most significant impacts may result from FEMA elevation requirements. A much larger number of structures was affected by FEMA's "substantial reconstruction" provisions than by the dead zone restrictions. The FEMA rules require elevation to the base flood elevation (BFE) when a structure is damaged 50% or greater (thus a lower threshold than the Beachfront Management Act). In Folly Beach alone it has been estimated that between 75 and 100 structures will have to elevate to the BFE. Many of these structures are not beachfront at all but were located on the second or third row or even farther inland. The Georgetown County building inspector estimates, as a further example, that between 60 and 70 homes in the Georgetown County portion of Garden City have been damaged more than 50% and thus must elevate.

While most coastal jurisdictions in South Carolina appear to be participating in the NFIP, it has been surprising how many homeowners had not purchased flood insurance. Generally in South Carolina, homeowner policies will pay for wind damages, but will not pay for damages associated with flooding. As might be expected there was considerable wrangling over what constituted wind damage versus flood damage, particularly where a propertyowner had one type of coverage but not the other.

Conclusions and Further Research

The implementation of the South Carolina Beachfront Management Act in the aftermath of Hurricane Hugo has so far been a mixed bag. On the one hand, the Coastal Council was reasonably prepared to deal with reconstruction permitting, establishing damage assessment procedures and administrative

rulings in advance of the storm. Moreover, the Council has dealt with the various issues and problems of reconstruction permitting fairly expeditiously, including adopting a series of general permits very shortly following the storm. Also, given the strain and magnitude of the workload and limited staff resources, Coastal Council staff have performed admirably.

On the other hand, owing to no fault of the Coastal Council or its staff, Hurricane Hugo occurred prematurely -- before all of the basic mechanisms of implementation had been fully put into place. The program lacked, among other things, the maps necessary to regulate rebuilding, and settled regulatory lines. And not surprisingly, despite the efforts of the Council to establish in advance of the storm a framework for guiding reconstruction, it confronted many specific issues it was not able to foresee. (e.g. whether to allow property owners to replace structures in the dead zone when they had not been damaged beyond repair). A full cataloging of these specific issues should be very helpful to other coastal states and localities planning for similar events, and this constitutes a significant part of the author's future research.

Perhaps even more fundamentally, Coastal officials were placed in the position of implementing and enforcing a set of coastal standards (the dead zone restrictions in particular) which were even before the storm being vehemently objected to by commercial and real estate interests. Indeed, a law amending the Act to eliminate the dead zone had already passed the S.C. Senate prior to Hugo. While Coastal Council members and staff indicate that these efforts had no bearing on the implementation and enforcement of the existing law, it is hard to imagine how they would not have some effect.

It does appear that the Coastal Council and its staff have attempted to be as flexible and lenient as possible in dealing with owners of damaged property. While a definitive answer to this question will have to await a more detailed examination of permitting decisions, a number of specific examples of permit decisions (some cited earlier in this paper), exhibit a willingness to accede to the wishes of propertyowners where at all possible under the law. Whether the flexibility is seen as desirable depends upon which interest group you consult -- propertyowners and hotel-motel owners see it as necessary and appropriate, while environmentalists view it as selling out and in violation of the law. This attitude of leniency seems a result of several factors, including: a belief on the part of some that stringent application of the law will only generate stronger opposition to the Act, perhaps jeopardizing any kind of serious coastal management in South Carolina; an attempt to reduce the financial liability of the state (i.e. though takings challenges); and a genuine sense of concern about the financial impacts of coastal regulations on coastal businesses and property owners. It is clear that the political and emotional pressures to be lenient are substantial following such an event, and further research into the kinds of political and legal mechanisms which may be necessary to insulate against such pressures may be needed. Preventing hotel and motel owners from repairing pools and seawalls potentially affects the livelihoods of many people and the profitability of these establishments, and thus understandably such

restrictions require considerable political and administrative fortitude to implement.

The South Carolina case vividly raises some basic questions about the legitimate extent of government regulation of private property, and the extent to which coastal regulations which substantially devalue private property are acceptable. Perhaps the biggest lesson from South Carolina is that such issues should be explicitly resolved in advance of such a disaster. Does preventing rebuilding on the dry beach constitute an unfair and unconstitutional "taking" of private property? What if the regulations do not totally deprive the owner of all economic use, but do result in a substantial devaluation (e.g. the property owner can rebuild, but only a much smaller home; a hotel owner can repair her structure, but cannot rebuild the accompanying pool...?) It seems fairly clear that the South Carolina courts will declare unconstitutional takings where the dead zone restrictions prevent the building of any kind of habitable structure. The most significant deficiency of the Beachfront Act is the failure to foresee and plan for this near inevitability, incorporating either a mechanism for allowing some development in these cases or a mechanism for funding compensation payments. This is an area where considerable research is appropriate, as the same basic problem will confront other coastal states and localities.

Several proposals for addressing these compensation questions have emerged in South Carolina, including the outright elimination of the dead zone as envisioned by the Waddell et al Senate bill. Representative Lenoir Sturckie, a member of the Coastal Council, has proposed his own more moderate version of an amended Beachfront Act, which many believe is closer to the true objectives of the original bill. The Senate version was given a blow recently when the House Agriculture and Natural Resources Subcommittee voted to work off the Sturckie bill in preparing compromise legislation. The Sturckie proposal would maintain the 20-foot no-construction zone, but would convert it to a kind of buffer zone, allowing the Coastal Council to issue variances which would permit some development in the dead-zone on a site-by-site basis.

Another option would be to simply accept the need for compensation and seek an equitable mechanism for raising the necessary funds. Governor Campbell in his January state-of-the-state address proposed the creation of a state coastal trust fund, which could be used both to fund acquisition of beachfront properties and beach renourishment projects. While there were few specifics attached to the Governor's proposal, logical sources of funding might be hotel-motel taxes, a gasoline excise tax in coastal areas, or other user-oriented funds. Representative Sturckie has in fact introduced a bill to create what is referred to as the "Beach Management Trust Fund," but this seems intended to primarily fund renourishment projects (through the issuance of state bonds). The Act would, however, allow localities to use a portion of their share of these funds for acquisition to promote beach access.

Whether it makes sense to buy expensive coastal properties that because of the Act have no reasonable economic use remaining, will depend in part on the public functions served by these acquisitions. Coastal Council

ideally needs a mechanism (perhaps similar to the Sturckie bill) which will allow it to make these site-by-site determinations. Acquiring a single isolated lot may do little to promote beach access, and because of the permanent nature of surrounding development may do little to advance a safer pattern of shoreline development. In these cases it may make sense to allow limited development (perhaps small, movable structures, located as far landward as possible). In other cases, perhaps where several contiguous vacant lots are located or where acquisition would contribute to a state or local objective to move development out of a particular area (e.g. an inlet hazard zone, incipient inlet area, area where few large engineered structures currently exist) state acquisition may be more appropriate and effective.

The South Carolina experience suggests the need for additional research and thinking about equitable and feasible mechanisms for moving development back from the ocean in the event of such storms. Transferable development rights (TDR) which would allow a beachfront property owner prevented from rebuilding to sell his unused rights or use them on an inland site, might be one possibility.¹⁷ The shifting of beachfront property values following such an event may also suggest new mechanisms for compensation. If second row homes suddenly become first row beachfront homes, it seems logical to expect the market value of these structures to rise accordingly. Public acquisition of restricted beachfront property (i.e. lots not able to rebuild because of dead zone restrictions) could be financed in part from some form of tax or assessment on these value increases. Perhaps mechanisms such as tax increment financing would be appropriate. This is an area where future research and thought is needed.

Serious questions have been raised about the ultimate benefits of a dead zone type of restriction in terms of shoreline retreat and hazard mitigation. Under the Beachfront Management Act, as currently implemented by the Coastal Council, a relatively small number of structures are prevented from being rebuilt. While clumps of vacant lots result in some cases, many of these lots are isolated, and surrounded by a sea of development -- the restrictions as presently enforced will not result in major shoreline retreat or in significant changes in land use and development patterns. This suggests the possible need to search for other mechanisms for encouraging or requiring coastal retreat. It is not clear, however, whether with stronger implementation and enforcement (including such things as extending the width of the dead zone, reducing the thresholds for declaring structures "damaged beyond repair," requiring more stringent damage assessments and so on) the concept of prohibiting shoreline redevelopment would have a much larger and more promising effect on the beach landscape. This will be one of the questions examined in the research to be conducted by the author in upcoming months.

One of the more potentially effective provisions of the Beachfront Management Act is the restriction placed on seawall reconstruction. If damaged vertical seawalls could be replaced with "softer," less damaging erosion control devices this might have considerable positive effects on the public beach. Yet, at least in some cases, the act has allowed the replacement of damaged vertical seawalls with sloping revetments that are just as "hard," and just as permanent.

To the Coastal Council's credit its administrative rulings were amended to prevent replacement with these harder structures. As with much of their post-Hugo permitting, the Council confronted an issue they had not foreseen. It is to be remembered that where no habitable structure exists behind the erosion control device, and it is damaged beyond 50% it cannot be rebuilt. It should also be remembered that if reconstruction is allowed, annual renourishment is mandated. (This, however, will not affect many individual propertyowners because of the presence of an on-going federal, state or local renourishment program).

Despite the limitations of the Beachfront Management Act, and questions about how stringently the Act has been enforced, even its critics believe it has accomplished some good. The act does seem to be causing development to move back from the ocean, is preventing the intensification of shoreline development which typically occurs following hurricanes, and does have considerable public education and "psychological trickle-down" benefits. Even with its imperfections, the Act represents a positive step forward for South Carolina and it is hoped that future efforts to revise and amend the law will seek to build upon these positives rather than to weaken or undermine this innovative law.

Footnotes

¹See FEMA, Interagency Hazard Mitigation Team Report, In Response to Sept. 22, 1989 Disaster Declaration, State of South Carolina, FEMA-843-DIR-SC, prepared by Region IV Interagency Team, October 1989; National Hurricane Center, "Preliminary Report: Hurricane Hugo, 10-22. September 1989," Coral Gables, Florida.

²S.C. Blue Ribbon Committee on Beachfront Management. Report of South Carolina Blue Ribbon Committee on Beachfront Management, Myrtle Beach, March, 1987, pp. iii-iv.

³For a more detailed discussion of this methodology, see Timothy W. Kana, "Methodology for Establishing Baselines and Setback Lines Under the South Carolina Beach Management Act," in Federal and State Regulation of Beaches and Wetlands in South Carolina, Legal Education Seminar, Columbia, South Carolina, August 25, 1989.

⁴Beachfront Management Act, Section 48-39-290(B)(7).

⁵The most seaward point of the replacement structure must not extend further seaward than the original vertical wall.

⁶See David J. Brower and Timothy Beatley, "Managing Growth on Developed Barrier Islands" in Rutherford Platt, ed. Cities on the Beach, University of Chicago, 1987; David J. Brower, Timothy Beatley and David J.L. Blatt. Managing Growth to Reduce Hurricane Hazards: A Guidebook for North Carolina Localities, N.C. Division of Emergency Management, Raleigh, N.C., 1987.

⁷"Coastal Council Seawall Too Much." Myrtle Beach Sun News, January 23, 1990.

⁸David Hill, "Kingfisher seawall gets Council O.K.," The Sun News, January 20, 1990.

⁹Philip F. Borden, "The Beachfront", letter to the Editor, Charleston Evening Post, 1/13/90.

¹⁰Newman J. Smith. 1989. "The Beach Management Act: Where Do We Go After Hugo?" South Carolina Lawyer, November/December: 7-12.

¹¹C.C. Harness III, Brief of Appellant, S.C. Coastal Council vs. David H. Lucas, appeal to S.C. Supreme Court, Case No. 90-38, 1990, p. 12.

¹²Ibid., p. 37.

¹³As cited in Harness, Ibid., p. 11.

¹⁴Ibid., p. 25-26.

¹⁵Lesia J. Shannon. "Law Prevents Man from Rebuilding," Myrtle Beach Sun News, March 4, 1990.

¹⁶e.g., see Godschalk, David R., David J. Brower and Timothy Beatley. 1989. Catastrophic Coastal Storms: Hazard Mitigation and Development Management, Durham, NC: Duke University Press.

¹⁷For a review of recent experiences with Transferable Development Rights see Peter J. Pizor, "Making TDR Work: A Study of Program Implementaton," Journal of the American Planning Association, Vol. 52, No. 2, Spring 1986, pp. 203-211.