second, indirect means of regulation. This section will discuss the application of these approaches at the state and federal levels.

Christie, Growth Management in Florida: Focus on the Coast, 3 J. LAND USE & ENVTL. LAW 33 (1987)

I. INTRODUCTION

Management of the Florida’s phenomenal growth and protection of the coasts became issues of increased public awareness in Florida in the mid-1980s. The 1985 Florida Annual Policy Survey, a public opinion poll conducted each year by the Survey Research Center in the Policy Sciences Program at Florida State University, identified growth management as the number one citizen concern in the state. Nearly twenty-nine percent of the citizens surveyed listed growth management as the state’s most important problem, while only about thirteen percent gave a priority to crime (including drugs). The legislature was presented with a clear mandate.

The response to this call for management of growth in the state was an integrated package of legislation that reflected the special importance of managing coastal development. The State and Regional Planning Act of 1984,\(^1\) the State Comprehensive Plan,\(^2\) the Growth Management Act of 1985,\(^3\) and the Coastal Zone Protection Act of 1985\(^4\) provided for planning for coastal resources management at the state, regional, and local levels, regulation of coastal development, and stricter control of state spending in coastal areas.

II. THE PLANNING ELEMENT

Florida’s planning framework incorporates and integrates planning at the state, regional, and local levels. Although this planning scheme is applicable to the entire state, the growth rate in coastal counties has made planning for coastal areas

\(^1\) (n.11) 1984 Fla. Laws ch. 84-257 (codified in scattered sections of FLA. STAT. ch. 186 (1985)).

\(^2\) (n.12) FLA. STAT. ch. 187 (1985).

\(^3\) (n.13) 1985 Fla. Laws ch. 85-55 (codified at scattered sections of FLA. STAT. chs. 161, 163, and 380 (1985)).

particularly important. The State Comprehensive Plan, agency functional plans,\(^5\) regional policy plans,\(^6\) and local government comprehensive plans all must address the needs of coastal areas and are bound by a thread of consistency.\(^7\)

The State and Regional Planning Act of 1984 required development of the State Comprehensive Plan as the first stage of the state's new planning effort. Although adopted by the legislature in 1985 as chapter 187, Florida Statutes, the State Plan does not create "law," but is rather the state's primary "direction setting document" and provides "long-range policy guidance." The Plan consists of twenty-five goals with 362 policies outlined as a guide for implementation of the goals. The Coastal and Marine Resources Goal of the State Plan provides:

(a) Goal.--Florida shall ensure that development and marine resource use and beach access improvements in coastal areas do not endanger public safety or important natural resources. Florida shall, through acquisition and access improvements, make available to the state's population additional beaches and marine environment, consistent with sound environmental planning.

(b) Policies.--
1. Accelerate public acquisition of coastal and beach-front land where necessary to protect coastal and marine resources or to meet projected public demand.
2. Ensure the public's right to reasonable access to beaches.
3. Avoid the expenditure of state funds that subsidize development in high-hazard coastal areas.
4. Protect coastal resources, marine resources, and dune systems from the adverse effects of development.
5. Develop and implement a comprehensive system of coordinated planning, management, and land acquisition to ensure the integrity and continued attractive image of coastal areas.
6. Encourage land and water uses which are compatible with the protection of sensitive coastal resources.

\(^5\)(n.16) See Fla. Stat. §§ 186.021 (1985). Agency functional plans are statements of agency policy and programs which further and support the goals of growth management and the State Comprehensive Plan.

\(^6\)(n.17) See Fla. Stat. §§ 186.507 (1985). Regional plans are developed by each of the state's eleven regional planning councils and must contain an analysis of the regions' needs and resources, as well as a statement of the regions' goals and policies related to growth management.

7. Protect and restore the long-term productivity of marine fisheries habitat and other aquatic resources.

8. Avoid the exploration and development of minerals which threaten marine, aquatic, and estuarine resources.

9. Prohibit development and other activities which disturb coastal dune systems, and ensure and promote the restoration of coastal dune systems that are damaged.

10. Give priority in marine development to water-dependent uses.

The State Plan and specialized agency functional plans - the state water use plan and the state land development plan - provide guidance for development by state agencies of agency functional plans. Each of these agency functional plans contains objectives and operating procedures to ensure specific, measurable progress toward state goals (including the coastal and marine resources goal), evaluate agency implementation of the state plan, and guide agency activities and budgeting.

Regional policy plans, like agency functional plans, must be consistent with the State Comprehensive Plan. Each of the state's eleven Regional Planning Councils develops a plan for its region and adopts the plan as rules. The regional plans will be used to evaluate developments of regional impact and local government comprehensive plans.

Local government plans have been required to include a coastal element since the original enactment of the Local Government Comprehensive Planning Act of 1975. The lack of a requirement for coordination of local plans with state and regional plans and policies exacerbated the general inadequacy of the previous requirements to deal with the tremendous growth of Florida's coastal communities. The Local Government Comprehensive Planning and Land Development Regulation Act of 1985 addressed both these problems by requiring consistency of local plans with state and regional plans and by substantially expanding the requirements for the coastal management element of local plans.

The legislature expressed a general intent that "local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and [that such plans] protect human life and limit public expenditures in areas ... subject to destruction by natural disaster." The requirements mandated by the legislature to implement this intent are so extensive that a complete discussion of the coastal management element of local comprehensive plans is beyond the scope of this paper. Although the following list extremely overgeneralizes the coastal management components, it provides a notion of the comprehensiveness of planning scheme. Each coastal community plan must include in its coastal management element at a minimum:

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\( ^{n.34} \text{1985 Fla. Laws ch. 85-55, §§ 1-20, (codified at scattered sections of Fla. Stat. ch. 163 (1986 Supp.).) } \)

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- a component to address the effects of point and non-point sources of water pollution on estuaries;
- a component for hazard mitigation, including population evacuation;
- a component for beach and dune protection and restoration;
- a post-storm redevelopment component to eliminate inappropriate and unsafe development;
- a shoreline use component emphasizing public access to beaches and water-dependent development;
- designation of high hazard coastal areas;
- a component addressing management and regulatory techniques for controlling development to mitigate threat to human life and protect the coastal environment; and
- a comprehensive master plan for deepwater ports within the local government's jurisdiction.

The coastal management element, read together with the conservation elements of local plans, the recreational element, instructions to use ecological planning principles, and requirements to preserve living and nonliving resources of the coastal zone, forms a strict planning framework for coastal management.

The act gives the coastal management element a special status by requiring that the element guide local government decision making and program implementation with respect to the following objectives;

1. Maintenance, restoration, and enhancement of the overall quality of the coastal zone environment, including, but not limited to, its amenities and aesthetic values.
2. Continued existence of viable populations of all species of wildlife and marine life.
3. The orderly and balanced utilization and preservation, consistent with sound conservation principles, of all living and nonliving coastal zone resources.
4. Avoidance of irreversible and irretrievable loss of coastal zone resources.
5. Ecological planning principles and assumptions to be used in the determination of suitability and extent of permitted development.
6. Proposed management and regulatory techniques.
7. Limitation of public expenditures that subsidize development in high-hazard coastal areas.
9. The orderly development and use of ports . . . to facilitate deepwater commercial navigation and other related activities.
10. Preservation, including sensitive adaptive use of historic and archaeological resources.

In addition to augmenting local plan requirements, the 1985 growth management legislation mandated the implementation of local plans by adoption of consistent development regulations. . . .
Florida’s planning legislation now provides a potentially strong basis for management of the coastal areas. The key will be in successful implementation of the plans. The original time frame envisioned in the legislation for plan development may be overly optimistic, and the costs associated with implementation may create additional impediments. However, Florida has taken a decisive first step toward effective growth management and management of the coastal zone.

III. THE STATE FUNDING ELEMENT

The Coastal Barriers Resources Act focused national attention on federal government funding and activities that directly or indirectly subsidized development of sensitive barrier islands and beaches. Florida had been no less guilty than the federal government and other states in providing infrastructure and programs that encouraged growth in areas that are most vulnerable to storms and erosion and that the state most wanted to protect.

In September 1981, the state took its first steps to correct this destructive strategy. Governor Bob Graham issued Executive Order 81-105 which instructed state agencies to:

1. Give coastal barriers, which include barrier islands, beaches, and related lands, high consideration in existing state land acquisition programs, and priority in the development of future acquisition programs.

2. Direct state funds and federal grants for coastal barrier projects only in those coastal areas which can accommodate growth, where there is a need and desire for economic development, or where potential danger to human life and property from natural hazards is minimal. Such funds shall not be used to subsidize growth or post disaster redevelopment in hazardous coastal barrier areas. Specific consideration shall be given to the impacts of proposed development or redevelopment with respect to hazard mitigation.

3. Encourage, in cooperation with local governments, appropriate growth management so that population and property in coastal barrier areas are consistent with evacuation capabilities and hazard mitigation standards.

A previously issued Attorney General’s opinion suggested that an executive order of the Governor was an ineffective and unenforceable tool for implementing coastal management strategies and protecting coastal barriers. Further action was necessary to assure that state programs would complement, rather than undermine, coastal management and protection.

A plan for selection and acquisition of coastal lands by the Department of Natural Resources, a first step in the Save Our Coasts Program, was originally approved by the governor and cabinet in late 1981 to implement the first of the governor’s directives. In 1983, however, the legislature partially superseded the plan
by enacting statutory criteria and procedures for land acquisition programs. Under current procedures, potential acquisitions are ranked by a Selection Committee composed of the Secretaries of the Departments of Environmental Regulation and Community Affairs, the Executive Directors of the Department of Natural Resources and the Game and Fresh Water Fish Commission, and the Directors of the Division of Archives and the Division of Forestry. Criteria for prioritizing the sites include: suitability of the land for outdoor recreation; the ability to meet an identified outdoor need, including consideration of the location with respect to users; quality of the natural resources; potential for loss of the property through alteration or conversion to other uses; ownership patterns; and cost. Each actual acquisition must be approved by the governor and cabinet.

Through December 19, 1986, the Save Our Coasts Program has allowed the state to acquire 88,372 acres of coastal lands in developed and undeveloped areas. The Save Our Coasts Program, along with the Save Our Rivers, Save Our Everglades, and the Conservation and Recreational Lands acquisition programs, has made Florida's land acquisition program the most extensive in the United States.

The coastal infrastructure policy of the Coastal Zone Protection Act of 1985 reinforces the expenditure limitation approach of the governor's 1981 order. Section 380.27, Florida Statutes, mandates that no state funds be used for constructing bridges or causeways to coastal barrier islands that are not currently accessible by bridge or causeway. The coastal infrastructure policy also emphasizes state-local cooperation. The state will not allocate funds to expand infrastructure unless the construction is consistent with the approved coastal management element of local government comprehensive plans. Section 163.3178, Florida Statutes, states the intent of the legislature that local governments also cooperate in developing funding policies. Local governments are instructed to design their comprehensive plans to "limit public expenditures in areas that are subject to destruction in natural disaster." The goals advanced in the governor's 1981 executive order have now become enforceable state law and policy, and a major element of the state's scheme for managing growth in coastal areas.

IV. COASTAL CONSTRUCTION REGULATION

The state of Florida has regulated coastal construction since 1970 under the Beach and Shore Preservation Act.Originally, the act established a construction setback requirement of fifty feet from the mean high water line. In 1971, however, the legislature authorized the Department of Natural Resources (DNR) to establish Coastal Construction Control Lines (CCCLs) which would supersede the setback lines. Because these construction controls are imposed to prevent erosion or damage to beach and dune systems, CCCLs are only established for sandy beaches.

\(^{6}(p.65)\) FLA. STAT. ch. 161 (1970 Supp.).

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Procedural requirements have caused substantial delay in establishing and updating CCCLs on a county by county basis. 1985 legislation eliminated many of the requirements of the state's Administrative Procedures Act and expedited the process for CCCL establishment. Current procedures require a public hearing and adoption by the governor and cabinet, and recording of the CCCL in county public records. Adoption of CCCLs is not subject to rule challenge or drawout proceeding, but can be subject to an invalidity challenge once adopted.

CCCLs are based on the 100-year storm surge and are intended to preserve beaches and dune systems and protect adjacent properties. Construction seaward of the control lines is strictly regulated, but not prohibited. An applicant for a permit for construction seaward of the CCCL must supply engineering data on shoreline stability and storm tides, and design features and information on potential impacts of the structure to clearly justify the location of the structure. DNR may also grant a permit in cases where existing adjacent structures form a "reasonably continuous and uniform construction line" further seaward of the CCCL if the existing structures have not been "unduly affected by erosion."

The legislation authorizes administration of CCCLs through local government coastal construction zoning and building codes. These codes must be approved by DNR as adequate to protect shorelines and property, and DNR retains a veto power over granting exceptions to the local requirements. Presently, no local governments are administering CCCLs pursuant to this authority.

In 1985, the legislature amended the Beach and Shore Preservation Act to create a second zone of jurisdiction—the thirty year erosion zone. This zone is based on DNR's projection on a case by case basis of the seasonal high water line as it will exist thirty years after the application for a construction permit. [The statute limits the thirty year erosion line to areas seaward of the CCCL in areas where the CCCL has been established.] Within this zone, virtually all new construction is prohibited.

To partially ameliorate the impact of this regulation on coastal property owners, the legislature provides that DNR may issue a permit for a single-family dwelling for the parcel so long as:

1. The parcel for which the single-family dwelling is proposed was platted or subdivided by metes and bounds before [October 1, 1985];
2. The owner of the parcel for which the single-family dwelling is proposed does not own another parcel immediately adjacent to and landward of the parcel for which the dwelling is proposed;
3. The proposed single-family dwelling is located landward of the frontal dune structure; and
4. The proposed single-family dwelling will be as far landward on its parcel as is practicable without being located seaward of or on the frontal dune.

This exception to the prohibition on building structures within the thirty year erosion zone was clearly intended to sidestep the issue of whether the regulation
constituted an unconstitutional "taking" of property by the state. By assuring at least one reasonable use of coastal property, the legislature sought to insure that the regulation does not preclude all economically reasonable use of property. It is clear, however, that some properties will not even meet the conditions for single-family dwellings, and the owners will be denied all use of the property for major construction purposes. The state's best justifications, of course, are that the regulation is necessary to prevent public harm to life and property, and that building a structure that will potentially be underwater within the lifetime of the mortgage is not reasonable.

The 1985 legislation adds a second line of defense against "takings" attacks. Section 161.57 of the Florida Statutes requires that sellers of property located totally or partially landward of the CCCL fully apprise purchasers of the nature of the property and the regulatory restrictions on its use. Such notice would preclude future purchasers of coastal property from claiming that the regulation frustrated reasonable, investment-backed expectations and resulted in a "taking" of property.

The question of whether coastal construction control requirements and erosion zone prohibitions would apply to repairs, modifications, or reconstruction of existing structures within those zones created a major controversy in the 1985 legislature. Owners asserted an unlimited right to rebuild or repair existing structures within the CCCLs or thirty year erosion zones. Environmentalists took the position that structures that are subject to destruction in coastal storms are probably imprudently built and should be prohibited or meet all new state requirements before rebuilding or repair can be carried out.

A compromise was eventually struck which provided that the Act's CCCL and thirty year erosion zone requirements would apply to all new construction except "modification, maintenance, or repair to any existing structure within the limits of the existing foundation which does not require, involve, or include any additions to, or repair or modification of, the existing foundation." Although DNR may permit rebuilding of structures within the confines of an original foundation if coastal construction control requirements are met, the agency may not allow expansion of the structure seaward of the thirty year erosion projection. The 1986 amendments allowed DNR some flexibility to permit rebuilding that might be safer or less environmentally damaging than rebuilding a structure on the original foundation. At its discretion, DNR may issue a permit to rebuild a structure landward of the original foundation if the relocation will not cause further damage to beach and dune systems.

The Coastal Zone Protection Act of 1985 amended Chapter 161 of the Florida Statutes to create a third jurisdictional area for the coast—the coastal building zone. The legislature intended that strict construction standards apply to this "most sensitive portion of the coastal area." The zone includes the area from the seasonal high water line to a line 1500 feet landward of the CCCL for high energy beaches,
and in other areas to the most landward velocity zone line established for federal flood insurance purposes. Barrier islands are also included in the coastal building zone up to 5000 feet landward of the CCCL or the entire island, whichever is less.

Within the coastal building zone, major structures must meet certain minimum construction standards. The original requirements were substantially amended in 1986 to clarify boundaries and building standards, and to make the standards consistent with federal flood insurance requirements. The current standard requires that major structures\textsuperscript{10} conform to the state minimum building code and the 1986 revisions to the 1985 Standard Building Code, be designed, located, and constructed in compliance with the National Flood Insurance Program, and be able to withstand wind velocities of 110 miles per hour. [Major structures in the Keys must withstand wind velocities of 115 miles per hour. Mobile homes are exempted from these requirements.]

The 1986 amendments clarified the application of coastal building zone requirements to substantial improvements to coastal property. The standards apply to construction or repair to an existing structure that equals or exceeds a cumulative total of fifty percent of the market value of the structure.

The design and structural requirements for minor structures\textsuperscript{11} are minimal and are primarily intended to reduce adverse impacts on the beach and dune systems and adjacent properties. The definition of such structures presumes that they be considered "expendable under design wind, wave, and storm forces." The act, therefore, precludes the construction of any rigid coastal or shore protection structures intended primarily to protect a minor structure.

Local governments were required to adopt building codes and enforce the requirements of this act by January 1, 1987. In addition, the more stringent state standards continue to apply within CCCLs. The building requirements of the

\textsuperscript{10}(\textsuperscript{10}) \textit{Fla. Stat. §§ 161.54(6)(a) (1985)} provides that: "Major structure" means houses, mobile homes, apartment buildings, condominiums, motels, hotels, restaurants, towers, other types of residential, commercial, or public buildings, and other construction having potential for substantial impact on coastal zones.

\textsuperscript{11}(\textsuperscript{11}) \textit{Fla. Stat. §§ 161.54(6)(b) (1985)} provides in part:

"Minor structure" means pile-supported, elevated dune and beach walkover structures; beach access ramps and walkways; stairways; pile-supported, elevated viewing platforms, gazebos, and boardwalks; lifeguard support stands; public and private bathhouses; sidewalks, driveways, parking areas, shuffleboard courts, tennis courts, handball courts, racquetball courts, and other uncovered paved areas; earth retaining walls; and sand fences, privacy fences, ornamental walls, ornamental garden structures, aviaries, and other ornamental construction.
Coastal Zone Protection Act will primarily affect areas landward of the CCCL and expand regulation of areas with low energy coastlines that do not have CCCLs established.

Florida’s three-fold and two-tiered regulation of construction on the coast has great potential for protecting life, property, and natural resources. The approach, however, is not without critics. First, the multiple jurisdictions and requirements are potentially confusing for property owners and local regulators. The 1986 amendments to chapter 161 have helped local governments by removing technical jargon and conflicts with federal regulation, and by establishing training programs for building inspectors and contractors. The disclosure provisions of section 161.57 may function to educate buyers concerning the degree of regulation on coastal property, but the statute provides no express remedy against a seller who fails to disclose.

Second, the approach is clearly expensive. The cost of establishing coastal construction control lines has been estimated at $5 per foot. This cost, however, must be measured against the damage prevented. In one study, the cost of hurricane damage to structures seaward of the CCCL was more than four and one-half times greater than for structures landward of the CCCL.

Thirty year erosion zones are to be established on a case-by-case basis and, theoretically, should not entail the expense involved in the county-by-county establishment of CCCLs. In fact, gathering historical measurement data and establishing change rates will require data bases that are likely to be expensive to create and maintain. The methodologies for determining the thirty year erosion zones are much more theoretical than for CCCLs, but must be technically defensible. The burden on affected property is so great that DNR will be subject to challenges that designation of a zone is "arbitrary and capricious" if the methodologies do not have a justifiable scientific basis.

ISLAND HARBOR BEACH CLUB, LTD.

V.

DEPARTMENT OF NATURAL RESOURCES

495 So. 2d 209 (Fla.App. 1 Dist. 1986)

These appeals arise out of a 1984 proceeding initiated by the Department of Natural Resources (DNR) to amend rule 16B-26.06, Florida Administrative Code, for the purpose of reestablishing the coastal construction control line in Charlotte County pursuant to section 161.053(2), Florida Statutes (1983). Appellants filed petitions challenging the validity of the proposed control line amendments .... A
formal administrative hearing lasting six days was held in November and December 1984, and on January 8, 1985, the hearing officer issued a final order finding the proposed rule establishing the new control line valid.

There presently remain nine issues raised by appellants on this appeal. For reasons hereafter discussed, we affirm the hearing officer's final order upholding the validity of the proposed rule reestablishing the coastal construction control line for Charlotte County.

I. STATUTORY PROVISIONS AND FACTS

Section 161.053(1), Florida Statutes (1983), declares that "the beaches in this state and the coastal barrier dunes adjacent to such beaches, by their nature, are subject to frequent and severe fluctuations and represent one of the most valuable natural resources of Florida." The statute further declares "that it is in the public interest to preserve and protect [the beaches and dunes] from imprudent construction which can jeopardize the stability of the beach-dune system, accelerate erosion, provide inadequate protection to upland structures, and endanger adjacent property and the beach-dune system." In furtherance of these findings, that section delegates to DNR the authority and responsibility to "establish coastal construction control lines on a county basis along the sand beaches of the state" fronting on the Gulf of Mexico and Atlantic Ocean. It also requires that such lines "shall be established so as to define that portion of the beach-dune system which is subject to severe fluctuations based on a 100-year storm surge, storm waves, or other predictable weather conditions." In addition, that section directs DNR to "establish a segment or segments of a coastal construction control line further landward than the impact zone of a 100-year storm surge, provided such segment or segments do not extend beyond the landward toe of the coastal barrier dune structure that intercepts the 100-year storm surge." DNR is authorized in subsection 161.053(2) to establish such control lines for counties having sand beaches "only after it has been determined from a comprehensive engineering study and topographic survey that the establishment of such control lines is necessary for the protection of upland properties and the control of beach erosion." DNR is [currently required to review CCCLs every five years].

In May 1974 DNR began collecting data along the Charlotte County coastline and in 1977 established the first coastal construction control line for the county. Pursuant to the review provision in section 161.053(2), DNR has undertaken to reestablish the control line in Charlotte County. In December 1982 DNR collected

\( ^{1}(n.5) \) The term "100-year storm" is defined in DNR rules as "a shore-incident hurricane or any other storm with accompanying wind, wave, and storm surge intensity having a one-percent chance of being equaled or exceeded in any given year." Fla. Admin. Code Rule 16B-33.02(16).
new beach and offshore profile data which indicated that the coastline had substantially fluctuated, accreting in some areas and eroding in others. In 1984 DNR initiated an administrative proceeding to amend rule 16B-26.06 to establish a proposed new control line in Charlotte County which would be substantially landward of the 1977 line for most of its length.

Section 161.053(2) sets forth the following seven factors which must be considered by DNR in establishing a coastal construction control line: (1) "ground elevations in relation to historical storm and hurricane tides"; (2) "predicted maximum wave uprush"; (3) "beach and offshore ground contours"; (4) "the vegetation line"; (5) "erosion trends"; (6) "the dune or bluff line, if any exist"; and (7) "existing upland development." According to DNR's evidence, all seven factors were taken into consideration in preparing the beach-dune profiles for the coast of Charlotte County herinafter discussed.

DNR experts testified that these seven statutory factors have been combined to a more compact form consisting of the following four "determining criteria for establishing the recommended position of the coastal construction control line": (1) the landward limit of penetration of the three-foot wave height during a 100-year storm event; (2) the landward limit of beach or dune erosion incident to a 100-year storm event; (3) the limit of the washover deposits incident to a 100-year storm event; and (4) the erosional trend over five years.

Using the above statutory and "determining criteria," DNR gathered data on the profile of onshore and offshore topography at sixty-eight range locations along the fourteen-mile Charlotte County coastline, each range being located at thousand-foot intervals. Historical data was then gathered on hurricanes in the area since 1900, and this data was used to calculate the predicted frequency of hurricanes and the probability curve for five different hurricane characteristics, i.e., hurricane track direction, radius to maximum winds, central pressure deficit, forward speed of translation, and track position. Using a storm surge computer model, with the above data as input, DNR simulated hurricanes and predicted an average storm surge level for a 100-year storm in Charlotte County. This predicted 100-year storm surge level was then input into another computer model known as the "Kriebel Erosion Model". This model calculated the anticipated erosion distance at each range location in the county during the predicted 100-year storm. The calculated erosion distance was then multiplied by a factor of 2.5 to account for overwash deposits and alongshore sediment transport not predicted by the model and, also, to reflect the calibration of the model from average erosion to erosion at the most severe point of impact based on observed historical data. The resultant beach erosion figure from the Kriebel model represented the landward limit of beach or dune erosion during a 100-year storm event.

The predicted 100-year storm surge level was also used by DNR to calculate the landward penetration of a three-foot wave during such 100-year storm. At each range location in Charlotte County, the proposed control line was located at the more landward point along the line set by the Kriebel Erosion Model or the line set
by the landward penetration of the three-foot wave. The proposed control line at ranges 1 through 15 in Charlotte County resulted from the Kriebel Erosion Model, whereas the proposed control line at ranges 16 through 68 was established on the basis of the three-foot wave line.

II. ISLAND HARBOR'S APPEAL

Island Harbor asserts some seven points challenging the hearing officer's order upholding the proposed rule amendment setting the new coastal construction control line. We discuss the arguments presented under each of its stated questions.

A. WHETHER DNR'S JURISDICTION TO ADOPT A COASTAL CONSTRUCTION CONTROL LINE IS LIMITED TO THE BEACH-DUNE SYSTEM.

Island Harbor contends under this point that DNR's setting of the new control line in Charlotte County constitutes an invalid exercise of delegated legislative authority because the line was set using methodologies designed to identify all areas of the coast subject to damage from a 100-year storm, rather than containing the line within the statutorily mandated "beach-dune system." It argues that DNR has taken a beach preservation statute and impermissibly transformed it into flood zone construction code, thereby extending DNR's jurisdiction to "protect" the coast against improvident construction. It contends that DNR has improperly construed the statutory term "beach-dune system" to include any part of the coast that might be affected by a three-foot storm surge wave without regard to whether there are in fact beaches or dunes in the area impacted, whereas, under the statute as construed by Island Harbor, DNR's jurisdiction is limited to the beach face and the landward toe of coastal frontal dunes. Island Harbor concludes that if there is a reasonable doubt as to the existence of agency jurisdiction and authority, the further exercise of that authority should be arrested . . . .

Island Harbor points to certain statutory language and DNR's own rules in support of its contention that DNR has impermissibly extended its jurisdiction beyond that granted by statute. It explains that section 161.053(1) gives DNR authority to set coastal construction control lines only "along the sand beaches of the state," and that, had the legislature intended to establish a program to regulate construction in flood zone areas, then it would not have limited DNR's authority to counties having sand beaches. Island Harbor emphasizes that DNR has by rule already established definitions of "beach" and "dune" which relate to existing physical structures, but that DNR has, in effect, amended these definitions by construing

\[2\] (n.6) "'Beach' is the zone of unconsolidated material that extends landward from the mean low water line to the place where there is marked change in material or physiographic form, or to the line of permanent vegetation (usually the effective limit of storm waves). Unless otherwise specified, the seaward limit of a beach is the mean low water line. Beach is alternatively termed the 'Shore.'" Fla. Admin. Code Rule

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the term "beach-dune system" to encompass dunes presently nonexistent and which may or may not occur in the future.

We are not persuaded that DNR has misapplied the statutory concept of "beach-dune system" and exceeded its statutory jurisdiction. We conclude, after review of the pertinent language in the applicable statutory provisions and the testimony of record, that the statutory phrase "beach-dune system" is properly construed to mean that portion of the coast where there has been, or is expected to be over time and as a matter of natural occurrence, cyclical and dynamic emergence, destruction, and reemergence of beach and dune structures. This definition of the beach-dune system comes directly from the testimony presented during DNR's case in chief by Deborah Flack, Director of the Division of Beaches and Shores at DNR, and has been consistently applied by DNR in other cases. We approve this definition upon the principle that an agency's construction of the statute it is charged with administering should be given great weight and should not be overturned unless clearly erroneous. We are persuaded that DNR's construction is not clearly erroneous because the word "system" is a term which evidences a broader concept than would follow from the use of the words "beach" and "dune" independently. The definitions of "beach" and "dune" in DNR's rules are not an impediment to this construction of "beach-dune system." We agree with DNR that it is reasonable to conclude that addition of the word "system" creates an entirely different connotation than is intended by use of the singular words "beach" and "dune."

"Dune' is a mound or ridge of loose sediment, usually sand-sized sediment, lying upland of the beach or shore, and deposited by any natural or artificial mechanism (e.g., dune may also include a beach ridge, dune ridge, chenier, etc.)." Fla. Admin. Code Rule 16B-33.02(9). A "chenier" is defined in Webster's Third New International Dictionary of the English Language (unabridged, 1981) as "a wooded ridge or sandy hummock in a swampy region."

Island Harbor also complains that another definition of beach-dune system given during Ms. Flack's testimony, i.e., "that geophysical area which is subject to severe fluctuations that could be anticipated in a 100-year storm event" is inconsistent with the statutory purpose set forth in section 161.053, Florida Statute (1983). It says that this definition goes well beyond the language of the statute because it contains no reference to either beach or dune and fails to take into consideration whether the geophysical area subject to severe fluctuations is part of the actual "beach-dune system." Again, we find no basis for reversal in this argument. Section 161.053(1) sets forth the statutory purpose to preserve and protect "the beaches in this state and the coastal barrier dunes adjacent to such beaches," and we recognize that any definition of the beach-dune system cannot disregard the beaches and dunes. But neither DNR nor the hearing officer's order has done so in applying a definition of beach-dune system to the facts established in this record. While Ms. Flack's quoted statement is not, standing alone, a complete and adequate definition, neither is it,

16B-33.02(3).
when read in context with the balance of her testimony, inconsistent with the statutory language. The 100-year storm event is one of several factors involved in the analysis, and the hearing officer found that "topographic maps showed dunes over virtually all of that part of the islands that is not actually beach face." Mrs. Flack's testimony must be understood as comprehending an area of land containing the dune structures shown by the evidence.

DNR presented competent, substantial evidence to support its determination that, at the very least, all of the land seaward of the proposed coastal construction control line is part of the beach-dune system of Charlotte County. DNR determined that dunes covered nearly all of the islands, and then it set the proposed control line on the assumption that most of the land mass of the barrier islands along the Charlotte County coast constitutes the beach-dune system. The hearing officer's original order found as follows:

Under conditions that have recently obtained in Charlotte County, sloping sand beaches climb from the water's edge to the toe of a more or less pronounced primary sand dune, behind which other dunes undulate in succession across the barrier islands to Lemon Bay or Gasparilla Sound, from which they are occasionally insulated by mangrove swamp. Vegetation over much of the islands, which vary from 200 to 2000 feet in width, attests to their present stability.

But chances are that a hurricane will in time strike, flattening the dunes, spreading the sand well inland everywhere, all the way across the islands in some places, and leaving a wide beach face without, in many places, any discernible dunes. Such a reconfiguration will ineluctably result from the major hurricane identified as the 100-year return storm.

Thereafter, under more favorable weather conditions, dunes will grow and reemerge, comprised of sand the Gulf gives back as well as the sand strewn across the island by the storm, unless surface impediments prevent. The cycle complete, dunes will again stand their erosion-damping vigil against the sea, a buffer protecting the mainland, as well as insular upland.

Although the evidence may have been in sharp dispute, the hearing officer had competent and substantial evidence before him which supports his findings, and we are not, therefore, authorized to disturb them. § 120.68(10), Fla. Stat. (1983).

B. WHETHER DNR'S METHODOLOGY BEARS NO REASONABLE RELATIONSHIP TO THE PURPOSE OF THE BEACH AND SHORE PRESERVATION ACT WITH REGARD TO THE SETTING OF COASTAL CONSTRUCTION CONTROL LINES.

Island Harbor argues under this point that methodologies used by DNR do not bear a reasonable relationship to the purpose of section 161.053, Florida Statutes (1983), because the three-foot wave criterion was not limited to the statutorily
mandated beach-dune system and because the Kriebel Erosion Model was modified with a "safety factor" that served to impermissibly extend the control line beyond that portion of the beach-dune system subject to severe fluctuations. This argument is premised on the legal principle that any agency regulation that purports to implement statutory authority must bear a reasonable relationship to the enabling legislation.

According to Island Harbor, DNR's use of the three-foot wave criterion in setting the control line bears no reasonable relationship to the statutory purpose of protecting the beach-dune system because the three-foot wave will invade farther inland where there are little or no dunes to be protected. According to Island Harbor, DNR's use of the three-foot wave can be explained by DNR's erroneous supposition that it is actually charged with setting a line to protect upland structures from flooding, rather than a line to protect the beach-dune system; and since the federal government uses the three-foot wave line for flood insurance purposes, that is apparently why it was adopted by DNR.

Additionally, Island Harbor contends that DNR's use of a 2.5 safety factor multiplier in conjunction with the Kriebel Erosion Model bears no reasonable relationship to the protection of the beach-dune system because use of the multiplier greatly exaggerates the effects of erosion during a 100-year storm.

Again we are not persuaded by these arguments, and conclude that use, of the three-foot wave methodology bears a reasonable relationship to the purpose of section 161.053. Island Harbor's argument assumes that the three-foot wave was used by DNR to establish the extent of the "beach-dune system" in Charlotte County. In fact, however, the three-foot wave was not used to establish the extent of the beach-dune system; that was determined by the presence of dunes over nearly all the islands. Rather, the three-foot wave was used to determine what portion of the beach-dune system would be subject to severe fluctuations in the event of a 100-year storm. The three-foot wave criterion does not lack a reasonable relationship to the statutory purpose simply because a three-foot wave will invade farther inland where there are presently few, if any, dunes; it bears a reasonable relationship to the statutory purpose because the area covered by the three-foot wave is shown to be part of the dynamic cyclical beach-dune system.

With respect to DNR's use of the 2.5 multiplier factor on the Kriebel Erosion Model, the hearing officer found that use of the multiplier was justified in order to convert average erosion into erosion at the point of direct hit of a 100-year storm event. The hearing officer explained his findings as follows:

3. The erosion model was calibrated by comparing what the model predicted with what in fact occurred in Walton County when Eloise hit. Erosion along the affected coast was not uniform. Investigators determined that a distance inland 2.5 times as far as the average distance to which the dunes eroded described the limit to which 97 or 98% of erosion occurred. Conversely, only along 2 or 3% of the 25 mile stretch of coast in Walton County affected by
Eloise did erosion penetrate further than 2.5 times the average penetration along the affected coast.

Dr. Chiu and others calibrated the erosion model so that it predicted the average erosion along an affected shoreline, obtaining this average by taking into account erosion at the periphery as well as erosion where the storm did its worst. In order, therefore, to use the model to "define that portion of the beach-dune system which is subject to severe fluctuations," the average generated by the model was multiplied by 2.5. DNR looked at what a 100-year return storm would do to the beach and dunes at each range it examined in Charlotte County, assuming that was where the storm struck. The use of the 2.5 factor proceeds from the assumption of a direct hit (or more precisely, almost a direct hit, since multiplying by 2.5 yields only 97 or 98% of what the erosion will be, if there is a direct hit)."

These findings are supported by competent, substantial evidence. Further, it appears from the record that DNR's use of the 2.5 multiplier is at least partially justified by the fact that the Kriebel model fails to take into account overwash deposits and alongshore sediment transport, and these factors tend to create more erosion than predicted by the Kriebel model. In light of these factors, and the necessity to convert average erosion under the Kriebel model into erosion at the point of a direct hit, we are unable to conclude that use of the multiplier bears no reasonable relationship to the purpose of section 161.053.

C. WHETHER DNR HAS EXAGGERATED THE IMPACTS OF A 100-YEAR STORM IN CHARLOTTE COUNTY.

Island Harbor contends under this point that appellants' constitutional protection of due process was violated by DNR when it used, as an integral part of its methodology in determining the effects of a 100-year storm, a doctoral thesis on "static and dynamic wave setup" which is unproven and not accepted in the general scientific community. It says that this unproven thesis resulted in a calculated storm water elevation 1.5 feet higher than that determined by the Federal Emergency Management Agency. Proceeding from the premise that the "static and dynamic wave setup." is based on an unproven doctoral thesis unacceptable in the general scientific community, Island Harbor argues that it is similar to lie detector evidence in criminal cases, which is inadmissible because of its lack of acceptance in the scientific community as a reliable indicator of truth or falsity. Furthermore, Island Harbor argues, the agency's use of an unproven theoretical concept to exaggerate the storm surge elevation by 1.5 feet caused the control line to be placed more landward than it should have been, resulting in DNR's authority and powers being greatly extended beyond that authorized by statute and supported by the factual evidence in the record. This result, Island Harbor says, is contrary to the rule that all doubts regarding the scope of agency authority should be resolved against the agency.
We do not accept as correct Island Harbor's statements concerning the legal standard for permitting an agency to use new scientific methodology in administrative proceedings within its statutory charge. In this case, the legislature, without providing explicit definitions, used diverse scientific terms, criteria, and words of art in section 161.053 which are meaningless to the ordinary person in the absence of expert technical and scientific explanation. We conclude that the choice of a particular scientific technique or methodology to explain these statutory terms and establish the control line was intended to lie, by legislative design, with the expertise of the agency. The selection and use of new scientific methodology was a matter of agency discretion that should not be set aside absent a showing that the agency's action is either arbitrary, capricious, an abuse of discretion, or not reasonably related to the statutory purpose. To this extent, therefore, we approve the federal standard for admissibility of scientific evidence in administrative proceedings, urged by DNR, as that standard accords great deference to the policy-making discretion and expertise of regulatory agencies.

In *Carstens v. Nuclear Regulatory Commission* the petitioners challenged, inter alia, the Commission's methodology for predicting the likelihood of seismic activity in an area proposed for a nuclear reactor, arguing that "the uncertainty of the science of seismology" required the Commission to adopt a more conservative methodology. Responding to this argument, the court said:

In advancing this argument, petitioners fundamentally misperceive the judiciary's role in complex regulatory matters. The uncertainty of the science of earthquake prediction only serves to emphasize the limitations of judicial review and the need for greater deference to policy-making entities. This is no startling or novel development. Just last year the Supreme Court in an analogous context observed that "[a] reviewing court must remember that the Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential." *Baltimore Gas & Electric Co. v. Natural Resources Defense Council, supra*, 462 U.S. at [103], 103 S.Ct. at 2256.

742 F.2d at 1577.

This federal standard is consistent with the general rule in Florida that an agency's exercise of delegated legislative authority will not be disturbed on appeal unless shown by a preponderance of the evidence to be arbitrary, capricious, or an abuse of administrative discretion.3

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3Application of this standard of appellate review of an agency's use of scientific methodology in furtherance of their delegated legislative authority, while paying deference to agency expertise, nevertheless does not dispense with the requirement that the agency adduce competent, substantial evidence of the reliability of the selected methodology; otherwise, the use of the methodology would undoubtedly be considered arbitrary and
The record contains competent, substantial evidence of reliability of the challenged methodology sufficient to support the hearing officer's findings of fact and approval of DNR's use of the "static and dynamic wave setup" theory. This methodology was verified by DNR against an actual storm of record, i.e., Hurricane Frederick. Dr. Dean testified that it was his understanding that the Academy of Sciences has never formally or informally addressed dynamic wave setup, contrary to the assertion of appellants' expert witness. Dr. Dean also testified that the theory has been accepted in a number of locations:

Q. Is dynamic wave set-up an experimental concept?

A. It is a rather new concept, but I certainly don't regard it as experimental. It is—it has been documented by a lot of people in Japan, it has been documented by, very recently, by people at the coastal engineering field research facility, in Duck, North Carolina, Scripps Institute of Oceanography, many, many people have studied it. It is a well known concept and when a lot of people refer to it by different names, a lot of people call it surf beat when it occurs right on the shore.

There being competent, substantial evidence in the record to support DNR's selection and use of the static and dynamic wave setup theory as a matter within the expertise of the agency, this point is insufficient to require us to set aside the order validating the proposed rule amendment.

....

E. WHETHER THE HEARING OFFICER'S SPECIFIC FINDINGS CONFIRM THAT THE PROPOSED COASTAL CONSTRUCTION CONTROL LINE IS ERRONEOUSLY PLACED ALONG THE SHORE OF CHARLOTTE COUNTY.

Island Harbor contends under this point that the location of the proposed control line is not supported by competent, substantial evidence because the hearing officer recognized in his supplemental findings that DNR’s predicted storm water elevation as 1.2 feet too high and the uncontradicted evidence showed that this overestimation would severely impact the location of the control line, placing it too far inland.

More precisely, Island Harbor states that DNR used a storm surge elevation of 13 feet in calculating the landward invasion of a three-foot wave and that the hearing officer specifically found in his supplemental findings that DNR’s estimate of the storm surge elevation was 1.2 feet too high. This overestimation, it says, had a significant impact on the predicted landward invasion of a three-foot wave, causing it to be located farther landward than if the correct elevation were used.

capricious.
DNR does not dispute that the predicted storm surge elevation was overstated by an inflated figure for static and dynamic wave setup, but responds that the overestimation was not as great as 1.2 feet and that, in any event, there were factors not taken into account in estimating storm surge elevations that served to underestimate such elevations from 1.5 to 3 feet. Accordingly, DNR contends, the final storm surge elevation figure used by it was an accurate prediction supported by competent, substantial evidence.

The hearing officer's original order discussed the accuracy of DNR's estimate of storm surge elevation and found that conservative biases in DNR's methodology more than offset the 1.2 feet of overprediction caused by the figures used for static and dynamic wave setup. In particular, he found that "a documented phenomenon known variously as 'initial rise,' 'forerunner,' and 'presurge anomaly' . . . adds 1 to 3 feet to surge elevations, and that this factor would offset any diminished wave setup almost entirely." He further found that "the conservatism of DNR's methodology" is shown by actual historical storms, and that "the storm surge model has been calibrated against storms of record, which has demonstrated its reliability, whatever the merits of its theoretical underpinnings."

These findings by the hearing officer, being supported by competent, substantial evidence in the record, effectively refute Island Harbor's argument that the 1.2 feet overestimation of wave setup rendered DNR's estimate of storm surge elevations invalid.

V. CONCLUSION

To summarize, we approve the definition of "beach-dune system" applied in this case as not exceeding the intent of the statutory language used in section 161.053, Florida Statutes (1983). DNR's selection and use of the challenged scientific methodologies lies within its statutorily delegated authority and discretion. These methodologies are reasonably related to the statutory purpose and have been adequately explicated and defended by DNR. The failure to formally adopt DNR's methodologies and the "determining criteria" as a rule does not invalidate their use in this rulemaking proceeding, where they were open to challenge by appellants. The facts as found by the hearing officer are supported by competent, substantial evidence, and application of the methodologies to these facts has not resulted in DNR's setting the coastal construction control line more landward than permitted by section 161.053. Therefore, the order upholding the proposed amendment to rule 16B-26.06 must be affirmed.

The complexity of the scientific and technical issues in this case and the consequent deference necessarily given to DNR's expertise vividly illustrate the limited role an appellate court can play in resolving disputes arising out of an administrative agency's exercise of delegated discretion in respect to technical matters requiring substantial expertise and "making predictions . . . at the frontiers
of science. It has become clear to us, and probably apparent to the reader of this opinion, that the setting of coastal construction control lines for the purpose of adequately protecting the beaches and dunes of this state is not a matter of scientific certainty. The legislature’s use of scientific terms and words of art in the organic statute, without setting forth more precise definitions, has compelled us to accord considerable—if not extraordinary—deference to DNR’s interpretation of these terms and its selection of scientific techniques and methodologies to be employed in carrying out its statutory responsibilities.

The new coastal construction control line which we hereby approve will, at many locations along the Charlotte County coast, subject most of, and sometimes the entire, land mass of the barrier islands to regulation by DNR under section 161.053, Florida Statutes (1983). The line is not set at dunes immediately adjacent to the beach front. Appellants’ right to use and erect structures upon the land they privately own may be seriously circumscribed in many of the areas covered by the amended rule. Evaluation of the economic, environmental, and geophysical concerns underlying the wisdom and desirability of so regulating land use along Florida beaches is, however, a political matter for determination by the legislature, not this court. The setting of a truly desirable and effective coastal construction control line along almost any segment of the Florida coastline will inevitably involve mixed consideration of scientific knowledge and political concerns. Although the 1985 amendment allocating the task of reestablishing these control lines to the Governor and Cabinet will afford some means of blending these considerations in a particular situation, the legislature itself must periodically review the lines set under this legislation and make specific changes as needed to insure that the agency, the Cabinet, and the courts are accurately discerning and applying the true statutory intent.

AFFIRMED.

PACE v. BOARD OF ADJUSTMENT
492 So. 2d 412 (Fla.App. 4 Dist. 1986)

The petitioner, James Pace, seeks review by certiorari of an order of the circuit court, acting in its review capacity, upholding administrative action. This case involves the petitioner’s unsuccessful efforts to build a single family home on a beachfront property in Jupiter Island, and the validity of the regulatory schemes of state and local administrative bodies which left him in a “Catch 22” situation with no place to build.

In March of 1982, Pace applied to the Board of Adjustment, Town of Jupiter Island (Town) for authorization to construct a residence. Pace had already sought a required coastal construction control line permit from the Florida Department of
Natural Resources, Division of Beaches and Shores (DNR). The DNR recommended denial of the permit, noting that the proposed structural elevation of the home would be insufficient to withstand anticipated storm events, and that due to the rapid erosion rate of the Jupiter Island shoreline, the town's 30 foot road setback requirement would force the structure to be placed unreasonably close to the shoreline. Pace incorporated the DNR's findings and recommendations into his request to the town, and in accord therewith requested a variance to increase the height of the clear space under the building, and to build forward of the 30 foot setback requirement. The Board approved the height request but denied the request to vary from the 30 foot road setback. Pace then renewed his application with the DNR and secured from the Governor and Cabinet sitting as heads of the Department, a final executive order granting the permit but conditioning such grant to a 30 foot landward relocation of the structure. The order noted, consistent with the previous findings of DNR staff, that the construction of a building in accord with the town's setback requirements would be inconsistent with the present pattern of beach erosion and the state's policy for shoreline protection.

Armed with expert witnesses, exhibits and the recommendations of high state executives, Pace again went before the Jupiter Island Board of Adjustment in November 1984. Pace offered the testimony of the chief of the state Bureau of Coastal Engineering, who expressed the view that building the structure in accordance with the town's requirements would adversely impact the beach dune system and give rise to an early need for artificial shore armoring. Opposition to Pace's request for a variance was voiced by several local residents who opposed buildings built immediately adjacent to the road right-of-way. The town manager addressed the Board, voicing his concern with "precedent"; i.e., the impact that the granting of a variance in this case might have on future requests from numerous other similarly located lot owners. The Board denied the variance and the circuit court upheld the denial.

The petitioner's main contention is that the Jupiter Island zoning requirement that structures be set back at least 30 feet from the public right of way conflicts with and is preempted by Chapter 161, Florida Statutes, which sets forth a comprehensive scheme for beach and shore preservation statewide. We cannot agree. Section 166.021(3)(c), Florida Statutes (1983) provides that the legislative body of a municipality may not legislate on "any subject expressly preempted to state or county government by the constitution or by general law" (emphasis added). The statute which purportedly preempts the town zoning ordinance is Section 161.053, Florida Statutes (1983). Looking to this statute, section 161.053(1) expresses the general legislative policy in favor of beach and shore preservation, and establishes the coastal construction control line. Section 161.053(4)(b) provides that counties and municipalities may establish zoning or building codes which are equal to or stricter than the state requirements, in terms of setback from the shoreline. However, there is no language in the statute preempting local zoning ordinances such as the one
at issue, which establish off road setback distances and are not concerned with beach and shore preservation.

Even if preemption could be implied, however, Section 161.053 simply does not evince any legislative policy that would conflict with the objectives of the Town of Jupiter Island in enacting its zoning scheme. While the scheme of regulation embodied in Chapter 161 may be pervasive with respect to municipal authority over shoreline areas seaward of the coastal construction control line, it is clearly not so pervasive as to preempt municipal authority in the completely distinct regulatory area of street level zoning. Two distinct and important public concerns are implicated in the two schemes, one to promote public safety and welfare by requiring buildings to be constructed some distance away from roadways and the other to require buildings to be set back from the shoreline in order to preserve the shoreline.

The application of the 30 foot roadway setback ordinance to Pace's parcel did come into conflict with the general state policy of combatting beach erosion in this particular instance. But this conflict does not invalidate the ordinance since the ordinance does not contravene the statutory requirements in any way; in other words, it does not require the petitioned to take any action which would violate the state law or forbid him from taking action which the state law requires. State and local provisions reflect conflicting policy considerations all the time, but this does not render the local provisions unenforceable. Accordingly, we find, contrary to Pace's position, that the circuit court did not fail to apply the law of preemption in reviewing the town's denial of a variance. In addition, it is apparent that the circuit court correctly applied the general principles of law respecting review of administrative agency action. In particular, the court examined the record for substantial competent evidence upon which the Board could have based its decision. The court found that the setback requirement was not only reasonable but fully consistent with valid concerns for public safety and welfare by providing some minimum space between a public roadway and a residential building. Further, the court tested Pace's request for a hardship variance against the general rule that such a variance will not be granted absent an unusual hardship to the landowner not shared by the holders of other parcels. The record reflects numerous other properties with the same problem.

Pace's unfortunate predicament is that he cannot secure both state and local approval to build a minimum sized home on his property because of legitimate state and local concerns. We also note that Pace failed to join the appropriate state agency in this action thereby further limiting the trial court's ability to remedy the problem. Under these circumstances, although we express no views on the merits, inverse condemnation may be the appropriate remedy.

The petition for writ of certiorari is denied.

[Postscript to Pace: Subsequent negotiations with the Governor and Cabinet resulted in a compromise allowing issuance of a CCCL permit to Pace.]
1. Chapter 161 provides that once a CCCL is established, "no person . . . shall construct any structure whatsoever seaward thereof; make any excavation, remove any beach material, or otherwise alter existing ground elevations . . . ; or damage or cause to be damaged such sand dune or the vegetation growing thereon seaward thereof except as hereinafter provided." DNR rules also require applicants to establish the necessity of and clear justification for development seaward of the CCCL. The language is not a complete prohibition on construction seaward of the CCCL. DNR can grant or approve permits for construction seaward of the CCCL if there already exists a "reasonably continuous and uniform construction line closer to the line of mean high water" than the CCCL or the property owner supplies adequate data on shore and dune stability and storm tides to demonstrate that the siting and design of the project will not endanger the dune system, existing structures, or adjacent properties.

2. A major problem in the management of barrier islands, beaches, and dunes has been the fact that both federal and state programs, including flood insurance, transportation programs, sewage treatment facility funding, and disaster relief, have tended to subsidize growth in the sensitive barrier areas. The federal government has enacted legislation to limit continued subsidization of growth on undeveloped barriers. Section 341(d) (1) of the Omnibus Budget Reconciliation Act of 1981, P.L. 97-35 established a new section 1321 of the National Flood Insurance Act of 1968. Section 1321(a) states that no new federal flood insurance coverage shall be provided on or after October 1, 1983, for any new construction or substantial improvements of structures located on undeveloped coastal barriers (now the Coastal Barriers Resources System).

The Coastal Barrier Resources Act (as amended by the Coastal Barrier Improvement Act of 1990 and P.L. 102-17 (1991)), 16 U.S.C. §§ 3501-10, bans direct and indirect federal subsidies for development on barrier islands designated part of the Coastal Barrier Resources System. New federal assistance is prohibited for new structures and facilities, most erosion control projects, airports, roads, bridges, sewer systems, and HUD assistance. There are exceptions for energy development, national defense and Coast Guard activities, maintenance of navigation channels and facilities, research, and enhancement of fish and wildlife habitat.

Over half the total area originally ineligible for flood insurance was located in Florida, Texas and Louisiana. The 1990 amendments broadened the definition of a coastal barrier to include barriers composed of consolidated sediment, such as the Florida Keys (about 67,000 acres), Puerto Rico, and the Virgin Islands.

_Bostic v. United States_, 581 F. Supp. 254 (1984), discusses the Coastal Barrier Resources System:
II. Legislative Background

Bills to enact a Coastal Barrier Resources Act were originally introduced in April, 1981. Prior to passage of initially proposed legislation, the Omnibus Budget Reconciliation Act of 1981 (hereinafter OBRA) was signed into law on August 13, 1981. Section 341(d)(1) of OBRA established a new section of the National Flood Insurance Act of 1968, 42 U.S.C. 4028, which provided that no new federal flood insurance would be provided on after October 1, 1983, for new construction or substantial improvements of structures located on undeveloped coastal barriers to be designated by the Secretary of Interior.

... .

In accordance with the directive of Section 341 OBRA, the Secretary established a Coastal Barriers Task Force to conduct the requisite study. This study by the Task Force resulted in the creation of ... maps which designated undeveloped coastal barriers. The Secretary reported his findings to Congress on April 13, 1982.

... .

During the time that the Department of Interior Task Force had been fulfilling its responsibilities under OBRA, in fact, during the final stages of agency action, Congress passed CBRA [16 U.S.C. 3501 et seq.], which was signed into law by the President on October 18, 1982.

... [T]he final maps referred to in Section 4 of CBRA superseded and replaced the proposed [OBRA] maps . . . .

III. The Coastal Barrier Resources Act

The enactment of CBRA established the Coastal Barrier Resources System (hereinafter CBRS or the System) . . . which consists of undeveloped coastal barriers located on the Atlantic and Gulf coasts of the United States. [The Coastal Barrier Improvement Act of 1990 extends the System to include Great Lakes barriers and requires a report on the need for protecting undeveloped coastal barriers on the Pacific coast.]

Section 5(a)(1) of CBRA prohibits new federal expenditures or financial assistance within the CBRS. Effective October 1, 1983, the financial assistance prohibited explicitly includes flood insurance . . . .

Section 3 of CBRA [as amended] defines an "undeveloped coastal barrier" to mean:
(A) A depositional geologic feature (such as a bay barrier, tombolo, barrier spit or barrier island that —

(i) is subject to wave, tidal and wind energies, and

(ii) protects landward aquatic habitats from direct wave attack; and

(B) all associated aquatic habitats, including the adjacent wetlands, marshes, estuaries, inlets, and nearshore waters; but only if such features contain few manmade structures and these structures, and man's activities on such feature and within such habitats, do not significantly impede geomorphic and ecological processes.

....

... The purpose of CBRA is manifold:

The Congress declares it is the purpose of this Act to minimize the loss of human life, wasteful expenditure of Federal revenues and the damage to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf coasts [and along the shore areas of the Great Lakes] ....

Congress' goal is to be accomplished by:

.... restricting future federal expenditures and financial assistance which have the effect of encouraging development of coastal barriers ... and by considering the means and measures by which the long-term conservation of these fish, wildlife, and other natural resources may be achieved.

In achieving its goal, Congress has expressly confined its curtailment of federal assistance to undeveloped coastal barriers.

The requirement that only those coastal barriers containing few man-made structures be included in the system serves two purposes. First, the denial of federal assistance to existing developed communities, many of which have been established for many years, would be inequitable. Second, in areas where development has already taken place, the structures and man's activities in these areas tend to interfere with the natural processes and change the essential nature of coastal barriers.

[House Report]

The original criterion used by Congress to make a threshold determination of developed and undeveloped barriers was whether there existed approximately one structure per five (5) acres of fastlands. With this beginning point the Committee examined the maps proposed by the Secretary and made its determinations regarding the barriers. [Section 4 of CBRA references and adopts maps for the CBRS]. ....

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3. Florida has also taken measures to limit subsidization of growth in sensitive coastal areas. Governor Graham issued the following Executive Order in 1981:

EXECUTIVE ORDER NUMBER 81-105

WHEREAS, it is the policy of the State of Florida to protect and manage Florida's extensive, fragile coastal resources, in order to enhance the recreational, scientific and natural resource values, for both present and future Floridians; and

WHEREAS, coastal barriers, which include barrier islands, beaches, and related lands, are essential to the maintenance of these coastal resources; and

WHEREAS, these coastal barriers serve to reduce Florida's vulnerability to natural hazards, particularly hurricanes, thereby reducing the ever-present threat to human life, private and public property, and other resources in the coastal areas; and

WHEREAS, these coastal barriers are vulnerable to hurricanes, other storm damage and geologic composition, and are continuously altered by wave, tidal, and wind actions; and

WHEREAS, these coastal barriers are a source of beauty and enjoyment, in addition to contributing billions of dollars to the State's economy annually; and

WHEREAS, past utilization of coastal barriers often has not taken place in a manner consistent with public safety and economic welfare; and

WHEREAS, certain State actions, programs, and funding policies have historically subsidized and encouraged development on coastal barriers resulting in loss of barrier resources, increased vulnerability of human life, health, and property and the recurring obligation of tax dollars; and

WHEREAS, the Florida Legislature, the Governor, the Cabinet, and various state agencies have recognized the importance of protecting these critical coastal areas and sought to manage these resources in a manner consistent with the principles of public safety, economic development, and resources;

NOW, THEREFORE, I, BOB GRAHAM, as Governor and Chief Executive of the State of Florida, by virtue of the authority vested in me by the Constitution and the Laws of the State, do hereby issue the following order effective immediately:
The Secretaries of the Departments of Commerce, Environmental Regulation, Health and Rehabilitative Services, Transportation, Veteran and Community Affairs and Director of the Governor's Office of Planning and Budgeting are directed to take the following actions as applicable to their agencies:

1. Give coastal barriers, which include barrier islands, beaches and related lands, high consideration in existing state land acquisition programs and priority in the development of future acquisition programs.

2. Direct state funds and federal grants for coastal barrier projects only in those coastal areas which can accommodate growth, where there is need and desire for economic development, or where potential danger to human life and property from natural hazards is minimal. Such funds shall not be used to subsidize growth or post disaster redevelopment in hazardous coastal barrier areas. Specific consideration shall be given to the impacts of proposed development or redevelopment with respect to hazard mitigation.

3. Encourage, in cooperation with local governments, appropriate growth management so that population and property in coastal barrier areas are consistent with evacuation capabilities and hazard mitigation standards.

Signed 4 September 1981

An Attorney General's opinion suggested that the executive order was an ineffective and unenforceable tool for protecting coastal barriers. The coastal infrastructure policy of the Coastal Zone Protection Act of 1985, however, reinforces the governor's expenditure limitation approach. The act provides that "[n]o state funds shall be used for the purposes of constructing bridges or causeways to coastal barrier islands . . . which are not accessible by bridges or causeways . . .," and the state will not expend funds to expand infrastructure unless it is consistent with the approved coastal management element of local comprehensive plans. In addition, section 163.3178 provides that "it is the intent of the Legislature that local government comprehensive plans . . . limit public expenditures in areas that are subject to destruction in natural disaster.

4. As vital state resources, the beaches of Florida require management from statewide and regional perspectives, in addition to local planning and state and local permitting of individual activities. Development, restoration, and management must be based on long-term research and planning for the state's beaches, and local planning, permitting, and coastal development should reflect state beach management goals. The following excerpt provides a brief summary of the history of the state's beach management planning:
1. Beach Renourishment and Beach Management

Florida’s beaches have been eroding or retreating at an alarming rate. The attraction for tourists, as well as the property of coastal residents, has been threatened by the ocean’s encroachment. On Thanksgiving Day, 1984, a rather routine storm hit the eastern coast of Florida, causing a great deal of property damage and washing away hundreds of feet of beach. This storm motivated environmentalists to look hard at the alternatives for managing the state’s beaches.

After the Thanksgiving Day storm, the Governor and Cabinet appointed a task force to develop comprehensive recommendations for beach restoration and renourishment. The recommendations of the task force led to legislation in 1986 in which the Florida Legislature enunciated the following state policy on beach erosion control:

Because beach erosion is a serious menace to the economy and general welfare of the people of this state and has advanced to emergency proportion, it is hereby declared to be a necessary governmental responsibility to properly manage and protect Florida beaches from erosion and that the Legislature make provision for beach restoration and renourishment projects.

The Legislature also found that beach erosion is a statewide problem, best addressed by a program in which DNR determines which beaches are critically eroding and administers state Beach Management Trust Fund expenditures for beach restoration or renourishment. DNR was also instructed to develop a "comprehensive long-term management plan for the restoration of the state’s critically eroding beaches."

In 1987, the unidimensional aspect (restoration) of the mandated 1986 beach management plan was revised. The legislature required the identification of alternative management responses and the consideration of such approaches as armoring, relocation and abandonment, and dune and vegetation restoration, in addition to restoration and renourishment. The law also required DNR to "[s]elect and recommend . . . management measures for all the state’s sandy beaches in a beach management program."

To develop the state plan, the state was divided into seven beach management districts. Beach restoration management plans, which must now be expanded into broader management plans, have been developed for three districts. DNR is currently preparing rules for development of beach management plans and rules for evaluation of restoration and renourishment projects.

Beach management can take three basic approaches: restoration, armoring, and retreat. In important tourist areas of the state, restoration and renourishment of
beaches is an economic necessity for the local communities and the state. The high cost of this management technique is justified by the revenue generated by those beaches. Those communities are also the most likely to be prepared to share in the cost of beach restoration projects. It is important to note, however, that because of environmental or physical conditions, all beaches are not candidates for restoration.

Armoring, the erection of seawalls or other barriers, is a second technique. Although armoring can provide short-term protection to endangered structures, some evidence indicates that armoring may increase the rate of erosion of adjacent beaches. In general, armoring is not a preferred management tool, but is often the only solution when a storm leaves a structure teetering on the brink of destruction. One might argue that all permits for armoring should be denied, because shoreline property owners have assumed this risk of erosion, and armoring is a potentially dangerous approach for long-term management. Such a policy is difficult to apply such a policy in individual cases, however, because of the moral, economic, and political dilemmas that arise.

Recent federal legislation somewhat alleviates the conflicts involved in instituting a no-armoring policy. Congress amended the National Flood Insurance Act of 1968 to extend coverage of flood insurance to include the cost of relocation or demolition of a structure that is "certified by an appropriate state or local land use authority to be subject to imminent collapse or subsidence as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels." In general, the insurance will pay for relocation costs up to forty percent of the value of the structure, and it will pay for demolition cost of 110 percent of the value of the structure or the actual cost for demolition, whichever is less. By removing much of the economic impact associated with state refusal to allow armoring to protect structures, Congress has created the opportunity for states to assess beach management techniques from a long-term, environmental perspective rather than in terms of short-term economic impacts.

The third beach management option—retreat—is one that is necessary where beach and dune systems are so dynamic that neither restoration nor armoring is feasible, when the economic costs of restoration cannot be justified, or when environmental concerns outweigh justifications for armoring or restoration. Cape San Blas on the Florida Panhandle is an example of an area with a dynamic beach and dune system. Although restoration or armoring will probably not be considered for those beaches, property owners probably will not realize their options are so limited until the ocean is encroaching on their structures. It is very important that the state's beach management plan be completed, with beach management techniques identified, so that a mechanism can be devised for apprising property buyers of the risk they are assuming in purchasing certain coastal property.
III. Protecting Coastal Wetlands and Estuaries

Coastal wetlands and estuaries also make up a significant portion of Florida’s coastal ecology, comprising the state’s most productive ecosystems. In addition to providing nursery and habitat for numerous birds and marine species, wetlands are also vital for water quality, aquifer protection and recharge, and flood control. Florida’s burgeoning growth and the desire for shoreline development have placed intense pressure on coastal wetlands. Overall, it is estimated that 12 million acres (sixty percent) of the state’s wetlands were lost between 1850 and 1973, with forty percent of south Florida’s wetlands disappearing between 1970 and 1973.

Although the state had indirectly regulated wetlands previously, the Henderson Wetlands Act of 1984, §§ 403.91-.938, was the first comprehensive Florida statute to regulate dredge and fill of wetlands. The Henderson Act not only recognizes the important functions served by wetlands, but also considers the broad range of public interests involved in wetland protection and development.

It has also been recognized that destruction of large areas of wetlands is of state and regional, not merely local, consequence. The Florida Environmental Land and Water Management Act of 1972, ch. 380, Florida Statutes, requires that certain developments, because of their size or character, undergo regional review. Impacts on wetlands and coastal systems are often a focus of the review of a “development of regional impact.”

The following cases provide insights into the processes and analysis applied in cases proposing development of wetlands.

1800 ATLANTIC DEVELOPERS

v.

DEPT. OF ENVIRONMENTAL REGULATION

CITY OF KEY WEST

552 So. 2d 946 (Fla. 1st DCA 1989)

1800 Atlantic Developers appeals a final order of the Department of Environmental Regulation that denied appellant’s application for a dredge and fill permit to make improvements, including sand restoration, to an eroded beach lying adjacent to a condominium project owned by appellants. Finding several errors in the administrative proceeding below, we reverse the order and remand for further proceedings on the application.

I.

The land in question is located on the Atlantic Ocean in Key West between Rest Beach and Smathers Beach. A public boat ramp abuts the boundary of 1800 Atlantic’s property, and a fishing pier is located at Rest Beach. Two jetties extend
seaward from Smathers Beach. 1800 Atlantic plans to construct a condominium project on the upland and construct improvements in the beach area. Its application, filed April 19, 1985, seeks a dredge and fill permit for the restoration of sand to its beach, construction of a 200-foot jetty on its east property line, construction of a 400-foot fishing pier on its western property line, and construction of a 50-foot square art display platform to be located seaward of the restored beach. Both the uplands and the submerged lands involved in the condominium project and the beach improvement project are privately owned by 1800 Atlantic, the submerged lands having been conveyed by the Board of Trustees of the Internal Improvement Trust Fund to 1800 Atlantic's predecessor in title by deeds dated in 1954 and 1955. 1800 Atlantic's property is about 460 feet wide at the shoreline, and the beach area to be filled extends seaward 20 feet from the mean high water line at the western end to a maximum of 100 feet from the mean high water line near the eastern end of the project. Water depths in this area are extremely shallow, and during low tides the entire fill area is exposed.

Both Smathers Beach and 1800 Atlantic's beach were built up with sand fill consisting of limestone fragments sometime prior to 1962. 1800 Atlantic's beach is eroding and the erosion is exacerbated by the two jetties at Smathers Beach and the public boat ramp, which effectively block any natural longshore beach nourishment of the shoreline from the east. Because of erosion occurring at Smathers and Rest Beaches, in February 1982 the United States Army Corps of Engineers prepared a feasibility report for beach erosion control with an accompanying environmental impact statement for Monroe County. 1800 Atlantic's property falls within the boundaries of this proposed beach erosion control project. The Corps of Engineers has stated that the proposed beach restoration project by 1800 Atlantic is consistent with the overall beach restoration project for Key West described in the feasibility report, and this has also been confirmed by the Florida Department of Natural Resources, Division of Beaches and Shores. The City is the local sponsor of the beach erosion control project described in the feasibility report and confirmed its support of the overall beach renourishment project to DER. The Governor of Florida, in 1981, expressed written support for the Corps of Engineers' beach restoration project with the recommendation that "any future beach nourishment be done in an environmentally sensitive manner."

Shortly after 1800 Atlantic filed its application, DER adopted rule 17-3.041(i), Florida Administrative Code, designating the waters in this area of Key West "Outstanding Florida Waters" effective May 8, 1985. This designation was adopted pursuant to section 403.161(27)(a), Florida Statutes (1984 Supp.), and the newly enacted Warren S. Henderson Wetlands Act of 1984, ch. 84-79, Laws of Florida, which is codified at sections 403.91-403.929, Florida Statutes (1984 Supp.). Both the 1984 act and rules promulgated thereunder impose additional requirements for the issuance of dredge and fill permits in designated waters and wetlands areas. Of particular importance to the issues in this case is the requirement in section 403.918(2) that before a permit can be issued for a project in Outstanding Florida Waters the applicant must provide reasonable assurance that water quality standards will not be violated and that the project will be clearly in the public interest in
according to the seven described statutory criteria.\footnote{1} Rule 17-4.242, Florida Administrative Code, also adopted pursuant to that act, requires that an applicant for a dredge and fill permit must demonstrate that "the existing ambient water quality within Outstanding Florida Waters will not be lowered as a result of the proposed activity."

1800 Atlantic made several revisions to its application in response to concerns expressed by DER's representatives, but DER issued a notice of intent to deny the permit on September 5, 1985. As a result, 1800 Atlantic requested a 120.57(1) hearing and continued discussions with DER regarding appropriate additional changes to allow issuance of the permit. After obtaining further revisions, supplemental technical information, and agreement to numerous specific conditions from 1800 Atlantic, DER gave notice of its intent to issue the permit on March 27, 1986, and 1800 Atlantic withdrew its request for hearing. As a consequence, the Florida Keys Citizens Coalition and the City of Key West (intervenors) requested a formal administrative hearing to contest the proposed issuance of the permit. The

\footnote{(n.3) Section 403.918 states in part:}

1. A permit may not be issued under ss. 403.91-403.929 unless the applicant provides the department with reasonable assurance that water quality standards will not be violated. The department, by rule, shall establish water quality criteria for wetlands within its jurisdiction, which criteria give appropriate recognition to the water quality of such wetlands in their natural state.

2. A permit may not be issued under ss. 403.91-403.929 unless the applicant provides the department with reasonable assurance that the project is not contrary to the public interest. However, for a project which significantly degrades or is within an Outstanding Florida Water, as provided by department rule, the applicant must provide reasonable assurance that the project will be clearly in the public interest.

(a) In determining whether a project is not contrary to the public interest, or is clearly in the public interest, the department shall consider and balance the following criteria:

1. Whether the project will adversely affect the public health, safety, or welfare or the property of others;
2. Whether the project will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats;
3. Whether the project will adversely affect navigation or the flow of water or cause harmful erosion or shoaling;
4. Whether the project will adversely affect the fishing or recreational values or marine productivity in the vicinity of the project;
5. Whether the project will be of a temporary or permanent nature;
6. Whether the project will adversely affect or will enhance significant historical and archaeological resources under the provisions of s. 267.061; and
7. The current condition and relative value of functions being performed by areas affected by the proposed activity.
case was assigned to a hearing officer from the Division of Administrative Hearings and a final hearing was set.  

Shortly before the scheduled hearing, DER gave notice that it would not support the issuance of the permit unless 1800 Atlantic further modified its proposed project and provided “mitigation” of adverse effects that may be caused by the project. As a result of the meeting with DER, 1800 Atlantic agreed to additional permit conditions, which included both a reduction in the size of the project and a mitigation plan as suggested by DER. With these additional conditions, DER agreed to support issuance of the permit. . . .

II.

The hearing officer filed a 38-page order recommending that the dredge and fill permit be denied “based on failure to provide reasonable assurances that the project is clearly in the public interest.” The hearing officer made detailed findings of fact on the type of vegetation and marine life in the project area, the benefits provided by these species, and the probable effects of 1800 Atlantic’s proposal on this area. The hearing officer specifically found that the proposed project would not adversely affect the public health, safety, or welfare, or significant historical and archeological resources, or endangered species or their habitats. Nor would the project degrade or cause violations of DER water quality standards for Outstanding Florida Waters. The project would not affect the flow of water, and harmful erosion or shoaling, though possible, would not be likely to result. With respect to the criteria relating to “current condition and relative value of functions being performed by areas affected by the proposed activity,” the hearing officer found “there are many natural areas typical to the Florida Keys which . . . are more valuable than the project site in biological productivity, as nursery and feeding grounds for fish, marine life and wildlife.” However, the hearing officer found the project would adversely affect the conservation of fish and wildlife, and fishing or recreational values and marine productivity in the area, but further found that issuance of the permit would not have adverse cumulative impacts because there were no similar projects existing or under construction.

\(^2\)Section 403.918(2)(b), Fla. Stat. (1985), states in part:

If the applicant is unable to otherwise meet the criteria set forth in this subsection, the department in deciding to grant or deny a permit shall consider measures proposed by or acceptable to the applicant to mitigate adverse effects which may be caused by the project. If the applicant is unable to meet water quality standards because existing ambient water quality does not meet standards, the department shall consider mitigation measures proposed by or acceptable to the applicant that cause net improvement of the water quality in the receiving body of water for those parameters which do not meet standards.
The hearing officer further found that 1800 Atlantic had not shown there was any "necessity" for the project or lack of "alternatives," and since, among other things, 1800 Atlantic had not "guaranteed" unlimited free public access to its restored property, it had not proven benefits to the "general public" and that the project "was clearly in the public interest." Concluding as a matter of law that 1800 Atlantic failed to show the proposed fill would be "clearly in the public interest," he recommended that 1800 Atlantic's permit be denied, stating:

One searches in vain for any significant public benefit from this project. New beach recreational opportunities would inure to the owners, guests, and tenants of the upland condominium. But no showing has been made that the general public would share in these opportunities. As to the claimed benefit of elimination of a shoreline of discontinuity, the project would create a new one (the groin structure) and, potentially, more discontinuity to the west.

No need for the project has been shown. The shoreline is stable and in equilibrium, protected by a natural armor 25 years in the making. Upland structures have not been shown to be in danger of being undermined. To the extent the applicant seeks to provide an added degree of protection from the sea (by widening the existing upland buffer zone); it has not shown that there are no reasonable alternative means to accomplish this result; means not requiring destruction of marine and wildlife habitat.

The recommended order shows that the hearing officer did not consider the additional permit conditions, including the mitigation, to which 1800 Atlantic had agreed because, in his view, these conditions lacked "detailed specifications" in that such conditions were "vague" and "ill-defined" and, to the extent 1800 Atlantic had agreed to submit additional drawings to DER following permit issuance, these conditions "placed beyond the scrutiny" of others "critical features" of the project.

III.

1800 Atlantic filed 34 exceptions to the recommended order . . . . The following stated rulings and reasons therefor are significant to the issues on this appeal.

. . . .

1800 Atlantic's exception 6 challenged the hearing officer's finding of the amount of halodule grass present in the fill area. The Secretary stated that this finding was based on the testimony of "one witness who viewed the fill site from the shore for approximately one hour" and totally disregarded "the testimony of three expert witnesses, one of whom made five 52 meter straight line transects at the project site. . . ." The Secretary concluded, rather ambiguously, that "this finding of fact should not be given much weight." Having so stated, the order continues:
Even minimizing such testimony, however, there is no question that the record shows that the proposed fill site is a productive marine habitat. The dispute appears to be over how productive that marine habitat may be. In this regard, since the proposed fill site is in Outstanding Florida Waters, the burden is on the permit applicant to show that any quantifiable diminution in the quality of this marine habitat must be offset by a showing that the filling would result in a net environmental benefit to the area, that mitigation efforts supplementing the filling would create a net environmental benefit, or that application of the seven statutory considerations would otherwise enable applicant to comply with the "clearly in the public interest" Outstanding Florida Waters test.

We must note at this point that there is no finding of fact in the hearing officer's recommended order that quantifies "how productive the marine habitat may be" in this case, and no record support for the Secretary's suggestion that there would be some quantifiable diminution in the quality of the marine habitat attributable to this project.

Such general statements of effect without any reference to standards set by statute or rule provide no meaningful way to measure whether the adverse effect is de minimis or substantial, and thus frustrates meaningful appellate review of the final order's compliance with applicable legislation.

Exception 23 filed by 1800 Atlantic challenged the hearing officer's finding that the project will adversely affect the conservation of fish and wildlife, fishing or recreational values, and marine productivity in the vicinity. This exception emphasized that comparatively low levels of diversity exist in the shallow water habitat of the fill area and that to say that the fill area supports a diverse community is misleading. The final order rejected this exception based upon the hearing officer's general statements, without any quantification whatsoever, of adverse effects upon these matters, concluding that 1800 Atlantic does not consider these effects de minimis and that these findings go to the heart of the public interest test under section 403.918(2).3

3(n.8) The order states in part:

Whatever the specifics may be as to diversity index numbers, the extent of seagrasses, and so forth, evidence clearly exists in the record, as found by the hearing officer, to support the finding as he stated it:

The site, which would be permanently covered with beach sand, now provides viable intertidal marine habitat and a feeding ground for migratory, shore and wading birds. It supports numerous species of juvenile fish and crustaceans, a diverse benthic and algae community, and patches of seagrass which benefit water quality and enhance the ecology of the marine environment. This
In the final order the Secretary agreed with 1800 Atlantic's exception that 1800 Atlantic, as the applicant, need not show any necessity for the project, and observed that "necessity is not a condition precedent to obtaining a permit." However, the order concludes that such fact may be relevant under the public interest test. The Secretary also agreed with the exception to the hearing officer's finding that 1800 Atlantic failed to demonstrate that its beach project will provide recreational opportunities to the general public, and stated that 1800 Atlantic is correct in its analysis of *Grove Isle, Limited v. Department of Environmental Regulation*, 454 So. 2d 571 (Fla. 1st DCA 1984), and subsequent legislative history surrounding the enactment of the Warren Henderson Wetlands Protection Act in 1984, to the extent they establish that an applicant's failure to guarantee public access is not a valid reason by itself for rejecting a permit application in an Outstanding Florida Water. Assuming that an applicant passes the balancing test for the seven criteria set forth in Section 403.918(2)(a), Florida Statutes, it is irrelevant whether or not the proposed site will make provision for public access. I must accept this exception to that extent, therefore. This does not mean, however, that 1800 Atlantic is now entitled to its permit. Other considerations previously discussed—particularly, the problems with diminished marine and wildlife habitat, the inadequately specified nature of the changes to the project application, and the ill-defined nature of the mitigation proposals—are sufficient by themselves to support denial of the permit notwithstanding the hearing officer's misapprehension of the public interest test. Let me add that I am not excluding public access altogether from consideration in determining whether a project is clearly in the public interest. If there are some environmental problems associated with the project, the fact of creation of public access to a public resource where one does not now exist may have some bearing on whether the project is clearly in the public interest. This does not mean, however, that failure of an applicant to provide public access is a basis upon which a permit application can be denied. To the extent the hearing officer infers this to be the case, such inference is rejected.

shallow water habitat, gently sloping to the sea from an extended unfortified shore line, is a diminishing resource in Key West. The existence of other submerged areas which are more biologically productive and support an even greater diversity of marine life do not diminish the positive value of the undisturbed project site to the marine environment.

This finding goes to the crux of the "clearly in the public interest" test. While the various parties to this action may argue over degree of diversity, not even the permit applicant suggests that the proposed project site is sterile or that filling will have a de minimis effect on habitat in the project area. The record clearly supports the hearing officer's finding that the project will adversely affect the conservation of fish, wildlife and marine productivity both within the project area and in the vicinity of it.
The final order then summarized the Secretary's views on the meaning of the Warren Henderson Wetlands Protection Act with particular emphasis on the public interest test under section 403.918(2):

In evaluating the clearly in the public interest test, the applicant is correct to the extent that it does not necessarily have to demonstrate that the proposed project would either enhance the environment, have no alternatives that are less damaging environmentally, be necessary, or show a public as opposed to private benefit. These factors may have to be considered, however, once the project proposed has been shown to have the negative environmental impacts found by the hearing officer, or might negatively impact other section 403.918(2)(a), Florida Statutes, criteria. . . . In addition to their use in a subsection (2)(b) mitigation analysis, factors such as environmental enhancement, alternatives, necessity and public versus private interest must be considered in the balancing test contained in subsection (2)(a) to determine whether the project would be clearly in the public interest to overcome a finding of negative environmental impacts. Such factors could include, for example, protection of public or private property against harmful erosion; the need for access to obtain recreational benefits; and other considerations of the public health, safety or welfare. It is clearly appropriate, in resolving the subsection (2)(a) balancing test, to address such considerations as less environmentally damaging alternatives, the necessity that a particular project be the means for accomplishing a public welfare goal that is environmentally harmful when other less harmful means exist, or whether an environmentally damaging project will benefit the public at large as opposed to a select few. In this case the applicant had to show either that no environmental harm as delineated in the statute would come from the project, that other considerations clearly in the public interest existed that outweighed the harm, or that the applicant through mitigation was able to overcome any harm. The hearing officer found that the applicant failed to establish, with sufficient specificity and clarity, that any of these conditions would occur. Those findings are based upon competent, substantial evidence, and so I am not at liberty to overrule them.

The Secretary adopted the hearing officer's findings of fact and conclusions of law as modified pursuant to her rulings on the exceptions, and denied the application with leave for 1800 Atlantic to file a new application to construct a beach at this site.

IV.

Initially, 1800 Atlantic argues that the final order must be reversed pursuant to section 120.68(8), Florida Statutes (1987), because material errors in procedure impaired the fairness of the proceeding.
A.

The statutory scheme established by the Warren S. Henderson Wetlands Protection Act of 1984, sections 403.91-403.929, Florida Statutes (1985), is intended to regulate dredge and fill activities in certain waters and wetlands of the State of Florida for the purpose of protecting and preserving the natural balance of the environment as much as possible. The statutory purpose is to be accomplished in two ways. First, the statute requires conformance to water quality standards for wetlands to be established by rules duly adopted by DER. § 403.918(1), Fla. Stat. (1985). Second, the statute requires an applicant to demonstrate that "the project is not contrary to the public interest" or, if the project "significantly degrades or is within an Outstanding Florida Water, . . . the applicant must provide reasonable assurance that the project will be clearly in the public interest." § 403.918(2), Fla. Stat. (1985). Setting the criteria for determining what constitutes the "public interest" is not delegated to DER's exercise of its rule-making power, unlike the delegation of setting water quality standards. Instead, the statute sets forth seven criteria to be considered and balanced by DER in determining "whether a project is not contrary to the public interest, or is clearly in the public interest." While the obvious statutory purpose is to regulate dredging and filling activity to prevent or limit harm to the natural environment in the respects described in the statute, there is no manifest statutory intent to prohibit the owner from conducting dredging and filling activity altogether. This is made perfectly clear by the statutory provisions requiring that: (1) "If the applicant is unable to otherwise meet the criteria set forth in this subsection, the department, in deciding to grant or deny a permit, shall consider measures proposed by or acceptable to the applicant to mitigate adverse effects which may be caused by the project" [§ 403.918(2)(b)]; and (2) in the event the department issues a notice of intent to deny or denies a permit pursuant to the act, "such notice or denial shall contain an explanation, in general terms, of what changes, if any, in the permit application are necessary in order for the department to approve the proposed project" (§ 403.92). Absolute prohibition of dredge and filling activity, therefore, should be the rare exception in cases of extreme damage to the environment that cannot be avoided or mitigated under any circumstances. It must be remembered that this act was not intended to serve as a means for the state to acquire private land for public purposes, or to compel the owner of private land to make it available for the public use and benefit, without the state's having to pay just compensation to the owners.

DER made considerable effort to comply with these statutory requirements prior to the hearing in this case. It specified the areas of its disagreement with 1800 Atlantic's application and worked out sufficient conditions and changes to make the application acceptable to the Department. DER then departed from the statutory scheme, however, when, because it changed positions at the hearing and in the final order, it determined to deny 1800 Atlantic's application with leave to file another application rather than specifying what changes are needed to make the pending project application acceptable. This attempt to partially invoke the doctrine of res judicata was contrary to the statutory scheme. As a consequence of DER's failure
to comply with the explicit requirements of section 403.92, reversal of the appealed order and remand for further proceedings is required.

B.

Furthermore, despite DER's extensive efforts to conform to the requirements of section 403.918(2)(b) by working out agreement on matters in mitigation set forth in the additional conditions acceptable to 1800 Atlantic that DER indicated were sufficient to authorize issuance of the permit, DER accepted the hearing officer's recommendation to deny the permit because he concluded that the additional conditions did not contain detailed specifications but were vague and ill defined. This ruling by DER was based on the recited belief that these conclusions of the hearing officer were "findings of fact" and binding on the Department. In so ruling, DER erred.

Section 403.918(2)(b) requires that DER, not the hearing officer, consider and determine what measures to mitigate adverse effects that may be caused by the project will be legally sufficient under the statute. This task cannot be delegated to the hearing officer. It is the responsibility of DER, not the hearing officer, to establish mitigative measures acceptable to it under the statute. DER, not the hearing officer, has the statutory responsibility to define mitigative measures that would be sufficient to offset the perceived adverse effects of the dredging and filling contemplated by the project in accord with the statutory criteria for determining public interest. . . . The prescription in section 120.57(1)(b) that a hearing officer's findings of fact are binding on the agency when supported by competent substantial evidence does not encompass findings on the sufficiency of the mitigative conditions agreed to by DER and 1800 Atlantic, as such findings are properly characterized as conclusions of law.

. . . .

. . . Accordingly, the order is reversed and the cause remanded for further negotiations and proceedings as may be necessary to comply with the statute.

. . . .

V.

1800 Atlantic next complains that DER has erroneously interpreted section 403.918(2) so as to authorize the Department to consider factors not contained in the statute in passing on the sufficiency of an application for permit by requiring that the project covered by the application produce a net benefit to the public to meet the public interest test.

It is perfectly clear to us that the hearing officer was under the erroneous impression that the Warren Henderson Wetlands Act required an applicant to demonstrate a "significant public benefit" as a prerequisite to obtaining a permit in
the sense that the "public would share in the opportunities" to be afforded to owners, guests and tenants of the privately developed condominiums on 1800 Atlantic's land. The hearing officer similarly concluded that "no need for the project has been shown." As previously set forth, the Secretary did not fully agree with these views of the hearing officer, stating that necessity is not a condition precedent to obtaining a permit and the owner applicant need not provide recreational opportunities to the general public. But the Secretary concluded that such facts are relevant under the public interest test, reciting in part:

[A]lthough beach creation or renourishment may have public interest considerations associated with the protection of public or private property, an applicant must first demonstrate, as was not done here, the need for such protection in the first place.

Necessity may come into play in the consideration of an applicant's entitlement to a dredge and fill permit, particularly in an outstanding Florida Water.

I am not excluding public access altogether from consideration in determining whether a project is clearly in the public interest.

It is clearly appropriate, in resolving the subsection (2)(a) balancing test, to address such considerations as . . . whether an environmentally damaging project will benefit the public at large as opposed to a select few.

We observe that the statute does not specify "need" for the project as a relevant consideration in defining criteria for determining public interest. 1800 Atlantic's project was entirely on private property intended for the benefit of private users, and it was not obligated to show a need or necessity for the dredging and filling in the sense of benefiting the public or the environment. It was only required to show that the dredging and filling required by the project would be carried out in a manner that would not materially degrade water quality and in a manner that was clearly in the public interest. In short, the dredging and filling statute does not regulate land use, such as a zoning regulation, but only the method of construction. In cases where the dredging and filling would substantially degrade water quality or materially harm the natural environment, the fact that a substantial public need or benefit would be met by approving the project may be taken into consideration in balancing adverse environmental effects. This is a purpose of the public interest test and the seven statutory criteria. While there may be projects that can never be permitted at all because the proposed construction cannot pass muster under the statutory requirements for dredging and filling under any circumstances, nothing in this record suggests that 1800 Atlantic's project falls into that category. This project is consistent with the Key West beach restoration project and will restore the owner's previously filled beach. We hold, therefore, that the applicant 1800 Atlantic need not show any particular need or net public benefit as a condition of obtaining the permit.
Nor does the statute require that 1800 Atlantic prove the absence of negative impacts from the project and demonstrate the creation of a net environmental or societal benefit to meet the public interest test. Suggestions in the final order that this showing is necessary simply because the project is in Outstanding Florida Water go beyond the statutory provisions and have no basis in the law.

VI.

Finally, 1800 Atlantic contends that section 403.918(2)(a) and the seven public interest criteria set forth therein are too vague and undefined and therefore are unconstitutional. In view of our disposition of the issues discussed above, we find it unnecessary to reach this constitutional issue.

Reversed and remanded for further proceedings.

THE CONSERVANCY, INC.
FLORIDA AUDUBON SOCIETY

v.

A. VERNON ALLEN BUILDER, INC.
STATE OF FLORIDA DEPT. OF ENVIRONMENTAL REGULATION


The Conservancy, Inc., and Florida Audubon Society bring this appeal from the final order of the Department of Environmental Regulation granting a dredge and fill permit. Although we affirm a number of the issues raised on appeal, we must on one point reverse and remand for further proceedings.

In April 1988, appellee A. Vernon Allen Builder, Inc. (Builder) submitted its application to the Department of Environmental Regulation (DER or Department) for a dredge and fill permit. The permit application was for the excavation and re-disposition of approximately 1,155 cubic yards of material within Gordon Pass in order to imbed a sewage pipeline system along the bottom of Gordon Pass extending from the City of Naples mainland south to Keewaydin (Key) Island. The pipeline will be part of a sewage force-main system which will provide sewer service to present and future development on Key Island.

Gordon Pass is located between the City of Naples and Key Island, a coastal barrier island designated by the United States Congress as a unit to be protected within the coastal barrier resource system pursuant to the provisions of the Coastal Barrier Resources Act (CBRA). The purposes of such congressional designation include prohibiting federal funding of any projects that would enable development
on designated coastal barrier islands due to their importance to the estuarine system and public health and safety. Key Island forms the southern shore of Gordon Pass. As a coastal barrier island, Key Island enables the existence and functioning of the estuarine system to the west and serves as a buffer to wave action from the Gulf of Mexico. As numerous witnesses and experts confirmed before the hearing officer, Key Island is a dynamic, evolving and inseparable part of the estuarine system. In turn, the estuarine system is dependent upon and cannot be separated from Key Island for its existence.

The northern tip of Key Island is within the city limits of Naples and contains the Keewaydin Club, a vacation resort long ago developed for an existing small private club. Its existence is so limited that its impact was determined to be minimal by Congress so as to require that Key Island be designated as an undeveloped coastal barrier island entitled to protection pursuant to the CBRA. The proposed subaqueous sewage pipeline is intended to serve the club’s existing facilities which presently utilize septic tanks, as well as a proposed new development of 75 exclusive estate homes intended to be built by Builder.

Appellants have raised four issues on appeal challenging DER’s decision to grant the dredge and fill permit. We affirm Points I, III and IV with little comment other than to say that . . . the complained of modifications to the project as suggested by the hearing officer and incorporated in the final order did not amount to a denial of due process. Instead, the more troublesome issue involves the hearing officer’s exclusion of the proffered evidence regarding the cumulative impacts of the permitted project. It is on this point that we must reverse and remand for further proceedings.

The issue of "cumulative impacts" was initially indirectly addressed in the Department’s Notice of Intent, wherein the Builder was advised to make other permit applications before constructing the sewer pipelines if it felt that denial of the other permits would result in unnecessary expenditure of resources. Specifically, in paragraph 10 of the Notice, the Department made the following observations:

The Department is aware that the proposed subaqueous sewer force main is intended to service a planned seventy-five (75) unit single family development and that the completion of this development will include plans to expand an existing docking facility and construct bridges and boardwalks over jurisdictional wetlands. The applicant is advised that dredge and fill permits will be needed for such work as well as any other planned dredging or filling in jurisdictional wetlands. The Department’s action in proposing to permit the construction of the force main shall not be construed as an endorsement or opinion of the permissibility of any such additional projects and it is understood by the applicant that any such permit applications may be denied in full or in part. Given this, it is suggested that the applicant make such applications before constructing the force main if it is felt that the denial
of these anticipated projects would result in the unnecessary expenditure of
resources in constructing the force main.

Thereafter, the hearing officer ruled on the matter in regard to appellees' motion
to strike appellants' amended petition. In a pre-hearing order, the hearing officer
stated that when the Intent to Issue was filed, the Department was very much aware
that the proposed subaqueous sewer main was intended to service a planned 75-unit
single-family development. She also ruled that any effect this future planning might
have on the design of the system as proposed by the Builder was an appropriate
matter for consideration. However, any matters relating to the development beyond
the design plans would have to be shown to be probative before they would be
considered at the hearing. To that end, the order provided:

If it can be demonstrated that the sewer main line is currently designed for
even more development beyond the proposed 75 units, this aspect of the
design and how the design increase affects the review criteria will also be
considered at the hearing. However, any extrapolation which predicts future
harm from proposed development is irrelevant, and will not be considered
as probative evidence during the formal hearing. . . .

. . . In Chapter 403, Florida Statutes, the Legislature specifically set forth the
criteria to be considered by DER in its review of an application for a dredge and fill
permit. The statutes, the small size of the proposed project, and the representation
by the applicant that the pipeline permit is not necessarily related to future
development, required that the evidentiary and review limitations be imposed. . . .

Furthermore, in her conclusions of law, the hearing officer made the following
additional observations on this point:

Of particular concern to the Petitioners at hearing was the indirect or
secondary impacts from the proposed projects. In the context of this dredge
and fill application, the secondary impacts would be any impact to DER
jurisdictional waters not caused by the actual dredging and filling necessary
to imbed the sewer pipeline. In this case, DER considered the project's
secondary impacts by requiring the applicant to have emergency shut-off
valves on each side of the pass to limit potential environmental harm from
the use of the pipeline within a sewage transfer system. A total review of the
proposed development in this proceeding is not allowed by the statutory grant
of authority nor is it relevant. The petitioners' concerns regarding
construction activities beyond this permit is not before the agency by way of
any permit application and is therefore not ripe for DER review. DER has
no power to require the applicant to submit all permits for review at one
time.

. . . .
In refusing to disturb the hearing officer's ruling on this issue, the Secretary of DER rejected appellants' exceptions to the hearing officer's ruling on cumulative impacts.

He went on to conclude that the rule of del Campo [v. Department of Environmental Regulation, 452 So.2d 1004 (Fla. 1st DCA 1984):

Only requires the impact of future development to be considered where the likelihood of future development is highly probable given the economic waste of the permitted activity in the absence of such future development. Thus, in Caloosa Property Owners' Association v. Department of Environmental Regulation [citation omitted], the court held that the Department was not required to consider the impacts of future development where there was no evidence establishing a reasonable likelihood of prospective development in the same area.

At the hearing in this case, expert testimony was introduced showing that the capacity of the pipeline was appropriate for the loading from the planned 75-unit development, but too small to handle the large additional development which Petitioners claimed would occur. Therefore, there was competent, substantial evidence to support the Hearing Officer's conclusion that evidence of impacts of development beyond the planned 75-unit single-family development should be excluded because there was no reasonable likelihood that the pipeline would be economic waste in the absence of such future development.

On the other hand, appellee DER urges that appellants' argument is an attempt to expand the scope of both section 403.919 and previous cases dealing with the Department's examination of impacts that are generally classified as secondary or cumulative. DER explains that "secondary" impacts are those that may result from the permitted activity itself, and "cumulative" impacts are impacts that may result from the additive effects of many similar projects. It, in turn, contends that section 403.919 should be considered to refer to cumulative rather than secondary impacts.

1 (n.1) Section 403.919 is as follows:

Equitable distribution. -- The department, in deciding whether to grant or deny a permit for an activity which will affect waters, shall consider:
(1) The impact of the project for which the permit is sought.
(2) The impact of projects which are existing or under construction or for which permits or jurisdictional determinations have been sought.
(3) The impact of projects which are under review, approved, or vested pursuant to s. 380.06, or other projects which may reasonably be expected to be located within the jurisdictional extent of waters, based upon land use restrictions and regulations.
However, it does recognize that the distinction is blurred somewhat in cases such as the present one where at least some of the claimed impacts could be considered under either category, in that they include both additional dredge and fill projects (cumulative impacts) and projects or developments that may be facilitated by the installation of the pipe (secondary impacts) . . .

. . . .

DER's arguments on this point illuminate the difficulties encountered by it and the hearing officer "in attempting to maintain absolute conceptual separations of the permits while simultaneously recognizing that the outcome of each one inextricably influences the outcome of the others." J.T. McCormick v. City of Jacksonville, 12 FALR 960, 981 (Jan. 22, 1990). Thus, it becomes clear that the resolution of the issue involved herein is not limited strictly to analyzing the alleged cumulative impacts, but, rather, depends as well on a consideration of secondary impacts and the subtle tension that exists between the two analyses.

The cumulative impact doctrine was elucidated by the Department in Peebles v. State of Florida, Department of Environmental Regulation, 12 FALR 1961 (April 11, 1990). Therein, . . . the Secretary of DER ruled that

in order to snow [sic] entitlement to a dredge and fill permit, an applicant must show that he has provided reasonable assurance that water quality standards will not be violated and that the project is not contrary to the public interest, and both of those tests must take into consideration the cumulative impacts of similar projects which are existing, under construction, or reasonably expected in the future. . . . The applicant's burden of proof includes the burden of giving reasonable assurance that cumulative impacts do not cause a project to be contrary to the public interest or to violate water quality standards.

Id. at 1965-1966. The Secretary went on to explain in Peebles that the role of the cumulative impact analysis is such that the Department is required to take into consideration "the cumulative impacts of similar projects which are existing, under construction, or reasonably expected in the future," citing again to the language in section 403.919. The Secretary emphasized that the cumulative impact doctrine "is not a third test, but rather a factor to be considered in determining whether reasonable assurance has been provided that the project will not result in violations of water quality standards and will not be contrary to the public interest." He went on to recount that the cumulative impact doctrine was originally developed as department policy and subsequently codified by the legislature in 1984 as section 403.919. . . . In explaining section 403.919, entitled "Equitable Distribution," the Secretary observed that, as the title suggests,

. . . the purpose of cumulative impact analysis is to distribute equitably that amount of dredging and filling activity which may be done without resulting in violations of water quality standards and without being contrary to the
public interest. In order to determine whether the allocation to a particular applicant is equitable, the determination of the cumulative impact is based in part on the assumption that reasonably expected similar future applications will also be granted.

However, in addition to employing a cumulative impact analysis, it has been the Department's policy, for purposes of applying and balancing the statutory public interest criteria in section 403.918, to look "at the actual jurisdictional area to be dredged and filled, and any other relevant activities that are "very closely linked or causally related to the proposed dredging and filling." Thus, in *McCormick*, the DER Secretary declined to adopt the hearing officer's recommendation not to consider any impacts of the overall landfill project in his review of the dredge and fill permit application to construct an access road to the project. Indeed, the Secretary observed:

Specifically in the context of permitting access roads and bridges, it has been the policy of the Department to consider what will be at the end of the bridge or road... Of course, if the activities or impacts proposed at the end of the bridge or road are remote in distance or conceptual relationship from the dredge and fill activity, those activities or impacts should be weighed accordingly in applying the statutory balancing test.

This particular policy, which clearly employs the secondary impact analysis, was specifically countenanced by this court in *del Campo*.

Based on the foregoing, we do not consider unreasonable DER's position that the cumulative impact doctrine is codified in section 403.919, which requires the Department to take into consideration only those impacts created by the cumulative effects of similar future projects, and not the "secondary" impacts caused or enabled by the project, such as the development in the instant case. However, it is also clear from the Department's decision in *McCormick* that the Department in certain cases is willing to apply a secondary impact analysis and to consider the impact of the total development as enabled by the proposed dredge and fill permit, which consideration is essential to the Department's evaluating whether the applicant has provided the requisite "reasonable assurances" required by section 403.918. In fact, the statement of Department policy set forth in *McCormick* is clearly consistent with that set forth in *del Campo* wherein the Department conceded that it "has maintained as a matter of law that in reviewing a permit application for a portion of a project it may consider the impacts of associated development, even where no application has been received for that development." 452 So.2d at 1006 (Smith, J., specially concurring and dissenting in part).

In the instant case, we disagree with appellees that the contemplated development of 75 estate homes is speculative and is not closely linked or causally related to the proposed dredging and filling. We perceive there to be little difference between the Department's aforesaid need to "consider what will be at the end of the bridge or road," and the necessity here to consider what will be at the end of the
pipeline, especially when the evidence, proffered or admitted, suggests that the development enabled by the dredge and fill permit could have devastating environmental impacts. Such evidence would be highly relevant to the Department's consideration of whether the applicant has carried its burden of giving reasonable assurances under section 403.918 that water quality standards will not be violated and the project is not contrary to the public interest. Thus, the Department's consideration of the proposed development solely in relation to the design of the pipeline system itself neglected the necessity in this case to consider potential secondary impacts.

Consequently, it was error for the hearing officer to exclude the evidence proffered by appellants for the reasons set forth in her recommended order. Accordingly, this cause must be reversed and remanded for further proceedings and reevaluation of the proffered evidence in a manner consistent with this opinion.

GRAHAM v. ESTUARY PROPERTIES, INC.
399 So.2d 1374 (Fla. 1981)

This case is before the Court for review of a district court decision reported at 381 So.2d 1126 (Fla. 1st DCA 1979). We affirm in part and reverse in part.

Estuary Properties, Inc., owns almost 6,500 acres of land in Lee County on the southwest coast of Florida near Fort Myers. The site includes substantial wetlands along Estero, San Carlos, Hurricane, and Hell-Peckish Bays and is a sensitive ecological environment. Tidal waters flush daily through about 2,800 acres of predominantly red mangroves on the edge of the bays. Some 220 days a year these tidal waters move through the red mangroves into the predominantly black mangrove forest which covers approximately 1,800 acres that Estuary wants to dredge or fill. The remaining 1,800 acres begin at the salina and range from two to five feet above mean sea level. Only 526 acres of the total area have been identified as dry enough to be classified as nonwetlands.

On June 18, 1975, Estuary applied to the board of county commissioners of Lee County for approval of a development of regional impact (DRI) pursuant to section 380.06, Florida Statutes (Supp. 1974).1 Estuary's plan provided for no construction on the 2,800 acres of red mangroves but contemplated destroying the 1,800 acres of predominantly black mangroves. In their place a 7.5 mile "interceptor waterway" would be constructed, and the fill from the waterway (and from twenty-seven lakes

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1(n.1) The Florida Environmental Land and Water Management Act of 1972, ch. 380, Fla. Stat. (1973 & Supp. 1974), has been amended subsequent to Estuary's application for a permit, but the changes do not affect the issues here.