

HOUSE OF REPRESENTATIVES STAFF ANALYSIS - Revised

BILL #: HB 1359 CS Hazard Mitigation for Coastal Redevelopment
SPONSOR(S): Benson
TIED BILLS: IDEN./SIM. BILLS: SB 2216

Table with 4 columns: REFERENCE, ACTION, ANALYST, STAFF DIRECTOR. Rows include Environmental Regulation Committee, Transportation & Economic Development Appropriations Committee, and State Resources Council.

SUMMARY ANALYSIS

The bill authorizes the Department of Environmental Protection (DEP) to revoke the authority for the emergency installation of a rigid coastal armoring structure by an agency, political subdivision, or municipality if such installation conflicts with certain public policies regarding adjacent properties, public access, or damage to vegetation or nesting turtle populations.

The bill defines Coastal High Hazard Area (CHHA), which is the area below the elevation of the category 1 storm surge line, and provides guidance for a local government that amends its comprehensive plan to increase population densities in a CHHA.

The bill provides a proposed comprehensive plan amendment must be in compliance with state coastal high hazard standards if the adopted level of service for out-of-county hurricane evacuation is maintained; or the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available; or appropriate mitigation will ensure that the level of service for out-of-county hurricane evacuation is maintained; or mitigation will ensure that the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available.

Local governments must amend their Future Land Use Map and coastal management element to include the new definition of coastal high hazard, the coastal high hazard map, and the appropriate mitigation strategies by July 1, 2008.

The bill prohibits the Department of Health from issuing a construction or repair permit for onsite sewage treatment and disposal systems located seaward of the coastal construction control line without receipt of a permit from the Department of Environmental Protection.

The bill will not have a significant impact on state government or local government.

This document does not reflect the intent or official position of the bill sponsor or House of Representatives.

STORAGE NAME: h1359f.SRC.doc
DATE: 4/25/2006

## FULL ANALYSIS

### I. SUBSTANTIVE ANALYSIS

#### A. HOUSE PRINCIPLES ANALYSIS:

**Provide limited government.** The bill authorizes the Department of Environmental Protection (DEP) to revoke the authority for the emergency installation of a rigid coastal armoring structure by an agency, political subdivision, or municipality if such installation conflicts with certain public policies regarding adjacent properties, public access, or damage to vegetation or nesting turtle populations.

The bill directs local governments to amend their Future Land Use Map and coastal management element to include the new definition of coastal high hazard, the coastal high hazard map, and the appropriate mitigation strategies by July 1, 2008.

The bill authorizes the Department of Health to contact the DEP prior to permitting work that may be performed on on-site sewage systems seaward of the Coastal Construction Control Line.

**Safeguard individual liberty.** The bill places a moratorium on the construction of new adult congregate living facilities, community residential homes, group homes, homes for the aged, hospitals, mobile home parks, or nursing homes within the coastal high hazard area.

#### B. EFFECT OF PROPOSED CHANGES:

##### Present Situation

###### **Dune Armoring**

Along with regulating construction along Florida's coastline, the DEP manages beach restoration projects to restore eroded shoreline in coordination with the federal and local governments. Subsequent maintenance of restored shorelines, referred to as nourishment, is also administered by the DEP.

Local governments are key players in beach management. All beach front communities are responsible for assuring compliance with zoning and building codes. Some play active roles in obtaining and maintaining beach access points, trash pickup and cleanup programs, dune vegetation regulation or maintenance, and water safety. Almost all counties, a number of cities, and several special districts now are involved in planning, implementing or maintaining a beach management activity such as inlet sand by-passing, beach restoration or dune restoration. The local government sponsor is responsible for planning the project, submitting information necessary to determine the priority of the proposal, obtaining necessary permits, bidding and contracting the work, and conducting subsequent monitoring.<sup>1</sup>

Federal agencies are involved in the regulation of beach activities through United States Army Corps of Engineers permits required for activities conducted seaward of mean high water, and through consultation required under the National Environmental Policy Act, the Endangered Species Act, the Marine Mammals Protection Act, and others. Typically, close coordination will take place with the National Marine Fisheries Service, the United States Fish and Wildlife Service, and the Environmental Protection Agency. Primary issues include provisions to protect sea turtles and shore birds, beach mice in those areas where they are still located, and Essential Fish Habitat.<sup>2</sup>

The purpose of the Coastal Construction Control Line Program (CCCL) is to protect Florida's beaches and dunes while assuring reasonable use of private property. The Legislature initiated the CCCL Program to protect the coastal system from improperly sited and designed structures which can destabilize or destroy the beach and dune system. Once destabilized, the valuable natural resources

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<sup>1</sup> Department of Environmental Protection Report for the Governor's Coastal High Hazard Study Committee on Chapter 161, Florida Statutes -- December, 2005, page 3.

<sup>2</sup> Ibid.

are lost, as are its important values for recreation, upland property protection, and environmental habitat. Adoption of a coastal construction control line establishes an area of jurisdiction in which special site and design criteria are applied for construction and related activities. These standards may be more stringent than those already applied in the rest of the coastal building zone because of the greater forces expected to occur in the more seaward zone of the beach during a storm event.

Under emergency conditions, local governments may authorize temporary armoring to immediately protect public and private infrastructure like homes, utilities and roads if those structures are threatened. In order to consider the armoring permanent, the property owner must submit a complete (CCCL) permit application to the DEP within 60 days of installing the armoring. Otherwise, the property owner must remove the temporary armoring structure.

The DEP permits the installation of “dune stabilization or restoration structures” and “beach stabilization or regeneration structures” only in limited circumstances and as temporary systems in order to evaluate (1) the structure’s effectiveness, (2) the structure’s effect on adjacent properties, and (3) the structure’s environmental impact on the beach and dune system. If erosion occurs as a result of a storm event which threatens private structures or public infrastructure, the DEP, a municipality, or another political subdivision may install or have installed rigid coastal armoring structures so long as the following measures are considered with the emergency armoring:

- Protection of the beach-dune system.
- Siting and design criteria for the protective structure
- Impacts on adjacent structures
- Preservation of public beach access
- Protection of native coastal vegetation and nesting marine turtles and their hatchlings.

### **Onsite Sewage Treatment and Disposal Systems**

According to the Florida Department of Health, 31 percent of the population is served by estimated 2.3 million onsite sewage treatment and disposal systems (OSTDS). These systems discharge over 426 million gallons of treated effluent per day into the subsurface soil environment.<sup>3</sup>

Onsite sewage treatment and disposal systems are facilities constructed on individual sites used to provide wastewater disposal. Such systems usually consist of a septic tank and a subsurface infiltration system. Within the septic tank, sedimentation and some anaerobic digestion of solids occur. Septic tanks contain bacteria that grow best in oxygen-poor conditions. These bacteria carry out a portion of the treatment process by converting most solids into liquids and gases. Bacteria that require oxygen thrive in the drainfield and complete the treatment process begun in the septic tank. If the septic tank is working well, the remaining partially treated wastewater, referred to as septic tank effluent, which flows out of the tank may be relatively clear, although it still has an odor and may carry disease organisms.<sup>4</sup>

Section 381.0065, F.S., states it is the intent of the Legislature that where a publicly owned or Investor owned sewerage system is not available, the Department of Health (DOH) shall issue permits for the construction, installation, modification, abandonment, or repair of onsite sewage treatment and disposal systems. The section requires that a person may not perform any of these actions without first obtaining a permit from the department. In issuing onsite system (septic tank) permits, the DOH has no statute or rule that specifically addresses designated coastal high hazard areas or DEP-established coastal construction control lines (CCCL), both of which are established to protect Florida’s coastal system and coastal infrastructure and private property. Section 381.0065(4), F.S., states that DOH “shall not make the issuance of such [septic tank] permits contingent upon prior approval” by DEP. Because DOH has no authority to enforce DEP’s statutes or rules about location of facilities in the coastal zone and has no authority of its own in this regard, onsite systems are often permitted seaward of structures, where they are most vulnerable to damage from storm surges.

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<sup>3</sup> <http://www.doh.state.fl.us/environment/ostds/intro.htm>

<sup>4</sup> <http://www.doh.state.fl.us/environment/OSTDS/pdffiles/forms/brochure.pdf>

## **Coastal High Hazard Study Committee**

On September 7, 2005, the Governor issued Executive Order 05-178, appointing members to the Coastal High Hazard Study Committee, which was charged with studying and formulating recommendations for managing growth in Coastal High Hazard Areas, defined as the Category 1 hurricane evacuation zones. The Committee was appointed to evaluate and make recommendations to resolve problems exposed by the extraordinary hurricane seasons in 2004 and 2005.

## **Regional Hurricane Evacuation Studies**

Section 252.35, F.S., assigns responsibility to the Division of Emergency Management (DEM) to maintain a comprehensive statewide program of emergency management. The division is required to prepare a comprehensive emergency management plan that is operations oriented. The plan must include specific regional and interregional planning provisions and promote intergovernmental coordination of evacuation activities. The division has the capability to conduct regional hurricane evacuation studies. Such studies include a computerized model run by the National Hurricane Center to estimate storm surge depths and winds resulting from historical, hypothetical, or predicted hurricanes taking into account:

- Pressure
- Size
- Forward speed
- Track
- Winds

This model is known as SLOSH (Sea, Lake, and Overland Surges from Hurricanes). Calculations are applied to a specific locale's shoreline, incorporating the unique bay and river configurations, water depths, bridges, roads, and other physical features to estimate storm surge.<sup>5</sup>

Another model utilized by the Division is The Arbiter of Storms model or TAOS. The TAOS model is an integrated hazards model that provides data at a higher resolution than the SLOSH model does for surge. According to DEM, the TAOS model enhances the local government's ability to do effective hazard mitigation planning. Currently, SLOSH model storm surge calculations are not available at the same resolution statewide, or in a standard Geographical Information System (GIS) format. The TAOS model can perform calculations of storm hazard risk for the entire state at one time, and the results are available for addition to the GIS data base.

The SLOSH model calculates storm surge for an area of coastline called a basin. In order to provide complete coverage for the state's coastline, 11 separate SLOSH basins and models must be created and run. Unlike the SLOSH model which only calculates for storm surge, the TAOS model will also calculate an estimate of storm surge, wave height, maximum winds, inland flooding, debris and structural damage for the entire state at once. Furthermore, the model resolution for TAOS with respect to underwater and on-land data is much finer than for the SLOSH model. No computer model is perfectly accurate and calculations of storm surge from both TAOS and SLOSH contain some degree of uncertainty.<sup>6</sup>

Periodic hurricane evacuation studies are required because of changing population dynamics. Populations and the existing transportation network define the speed with which an evacuation may be conducted. Regional hurricane evacuation studies are able to determine recommended timing intervals used to control a sequenced evacuation by locality.

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<sup>5</sup> [http://www.nhc.noaa.gov/HAW2/english/surge/slosh\\_printer.shtml](http://www.nhc.noaa.gov/HAW2/english/surge/slosh_printer.shtml) and [http://www.floridadisaster.org/hurricane\\_aware/english/surge/x\\_slosh.htm](http://www.floridadisaster.org/hurricane_aware/english/surge/x_slosh.htm)

<sup>6</sup> [http://www.floridadisaster.org/brm/lms/faq\\_taosslosh.htm](http://www.floridadisaster.org/brm/lms/faq_taosslosh.htm)

## Effects of Proposed Changes

The bill authorizes the Department of Environmental Protection (DEP) to revoke the authority for the emergency installation of a rigid coastal armoring structure by an agency, political subdivision, or municipality if such installation conflicts with certain public policies regarding adjacent properties, public access, or damage to vegetation or nesting turtle populations.

The bill defines Coastal High Hazard Area (CHHA), which is the area below the elevation of the category 1 storm surge line, and provides guidance for a local government that amends its comprehensive plan to increase population densities in a CHHA. The bill requires that the coastal management element of a local government's comprehensive plan contain a designation of a CHHA.

The bill provides a proposed comprehensive plan amendment must be in compliance with state coastal high hazard standards if the adopted level of service for out-of-county hurricane evacuation is maintained; or the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available; or appropriate mitigation will ensure that the level of service for out-of-county hurricane evacuation is maintained; or mitigation will ensure that the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available.

Mitigation may not exceed the amount required for a developer to accommodate impacts reasonably attributable to the development, and must include:

- Payment of money
- Contribution of land and construction of hurricane shelters and transportation facilities

For those local governments that have not established a level of service for out of county hurricane evacuation by July 1, 2008, the level of service may be no greater than 16 hours for a category 5 storm event as measured on the Saffir-Simpson scale.

Local governments must amend their Future Land Use Map and coastal management element to include the new definition of coastal high hazard, the coastal high hazard map, and the appropriate mitigation strategies by July 1, 2008.

The bill requires for the Division of Emergency Management to manage the update of regional hurricane evacuation studies.

The bill prohibits the Department of Health from issuing a construction or repair permit for onsite sewage treatment and disposal systems located seaward of the coastal construction control line without receipt of a permit from the Department of Environmental Protection.

### C. SECTION DIRECTORY:

**Section 1.** Amends subsection (3) of s. 161.085, F.S., providing that unless authority has been revoked by the DEP, an agency, political subdivision, or municipality having jurisdiction over the impacted area may install or authorize installation of a rigid coastal armoring structure. The DEP may revoke such authority if the DEP determines that the structure harms or interferes with the protection of the beach-dune system, adversely impacts adjacent properties, interferes with public beach access, or harms native coastal vegetation or nesting marine turtles or their hatchlings.

This section also authorizes the installation of sand-filled tubes or similar structures provided the US Fish and Wildlife service issues an incidental take permit, adequate sand cover be maintained so that the dune structure is not adversely affected or turtle nesting is not impaired, and assurances that the structures will be removed if the second condition is not met.

**Sections 2.** Amends paragraphs (d) and (h) of subsection (2) of section 163.3178, F.S. and adds subsection (9) to that section, to:

- Define Coastal High Hazard Area (CHHA), which is the area below the elevation of the category 1 storm surge line, and provides guidance for a local government that amends its comprehensive plan to increase population densities in a CHHA. The bill requires that the coastal management element of a local government's comprehensive plan contain a designation of a CHHA.
- Provide a proposed comprehensive plan amendment must be in compliance with state coastal high hazard standards if the adopted level of service for out-of-county hurricane evacuation is maintained; or the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available; or appropriate mitigation will ensure that the level of service for out-of-county hurricane evacuation is maintained; or mitigation will ensure that the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available.
- Limit mitigation so that such may not exceed the amount required for a developer to accommodate impacts reasonably attributable to the development. Mitigation must include:
  - Payment of money
  - Contribution of land and construction of hurricane shelters and transportation facilities
- Provide that for those local governments that have not established a level of service for out of county hurricane evacuation by July 1, 2008, the level of service shall be no greater than 16 hours
- Require local governments to amend their Future Land Use Map and coastal management element to include the new definition of coastal high hazard, the coastal high hazard map, and the appropriate mitigation strategies by July 1, 2008.
- Direct the Division of Emergency Management to manage the update of regional hurricane evacuation studies. Such studies must be done in a consistent manner and using the methodology for modeling storm surge that is used by the National Hurricane Center.

**Section 3.** Amends subsections (2) and (3) of section 163.336, F.S., extending the coastal resort area redevelopment pilot project until 2014 (8 years), providing flexibility to consider placing the sand on adjacent properties under certain circumstances, and requiring the DEP to report to Legislature regarding the analysis of the economic and environmental value of the project on or before February 1, 2008.

**Section 4.** Amends subsection (4) of section 381.0065, F.S., to require the Department of Health to be in receipt of a coastal construction control line permit issued by the Department of Environmental Protection before issuing a permit for work on an onsite sewage treatment and disposal system seaward of the coastal construction control line.

**Section 5.** The bill provides for an effective date of July 1, 2006.

## II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

### A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

Dune armoring: According to the DEP, the fiscal impact is indeterminate yet probably neutral overall. The legislation would save DEP staff resources and money expended on fixing the damage caused by improperly installed emergency armoring. Such armoring increases beach erosion and damages the beach and dune system, increasing the cost of restoration and recovery projects. The cost savings is impossible to estimate with any accuracy as the costs of beach recovery and restoration projects vary greatly depending on site-specific circumstances.

The DOH reports no fiscal impact to the agency.

Hurricane studies: The Division of Emergency Management currently conducts the type of studies required by this bill. Such studies are usually funded through federal sources and recurring state funding is not usually provided.

### B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

According to the DEP, there would be no fiscal impact on local governments that properly use their authority to install or authorize emergency armoring.

Certain local governments may spend an indeterminate amount of time and resources to amend their Future Land Use Map and coastal management element to include the new definition of coastal high hazard, the coastal high hazard map, and the appropriate mitigation strategies by July 1, 2008. According to the Association of Counties, the expense is not considered to be substantial.

### C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Improved assurance of proper coastal armoring will save private property by preventing coastal erosion, likely saving insurance as well as property repair and replacement costs. These savings could be substantial but are indeterminate.

Indeterminate savings could accrue to homeowners whose onsite sewage systems are not washed away during storms because better consideration is given to proper siting.

If an amendment to a local government comprehensive plan raises the population density within a coastal high hazard area, developers will need to provide mitigation options for on-site sheltering or transportation out of harms way.

### D. FISCAL COMMENTS:

None.

### III. COMMENTS

#### A. CONSTITUTIONAL ISSUES:

##### 1. Applicability of Municipality/County Mandates Provision:

Not applicable because this bill does not appear to: require cities or counties to spend funds or take actions requiring the expenditure of funds; reduce the authority that cities or counties have to raise revenues in the aggregate; or reduce the percentage of a state tax shared with cities or counties.

##### 2. Other:

None.

#### B. RULE-MAKING AUTHORITY:

None.

#### C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

### IV. AMENDMENTS/COMMITTEE SUBSTITUTE & COMBINED BILL CHANGES

On April 5, 2006, the Committee on Environmental Regulation approved a strike all amendment offered by the bill sponsor. The strike all differs from the bill as originally filed as follows.

The amendment defines Coastal High Hazard Area (CHHA), which is the area below the elevation of the category 1 storm surge line, and provides guidance for a local government that amends its comprehensive plan to increase population densities in a CHHA. The amendment requires that the coastal management element of a local government's comprehensive plan contain a designation of a CHHA.

The amendment provides a proposed comprehensive plan amendment must be in compliance with state coastal high hazard standards if the adopted level of service for out-of-county hurricane evacuation is maintained; or the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available; or appropriate mitigation will ensure that the level of service for out-of-county hurricane evacuation is maintained; or mitigation will ensure that the 12-hour evacuation time to a shelter is maintained and there is sufficient shelter space available.

Mitigation may not exceed the amount required for a developer to accommodate impacts reasonably attributable to the development, and must include:

- Payment of money
- Contribution of land and construction of hurricane shelters and transportation facilities

For those local governments that have not established a level of service for out of county hurricane evacuation by July 1, 2008, the level of service shall be no greater than 16 hours

The amendment places a moratorium on the construction of new adult congregate living facilities, community residential homes, group homes, homes for the aged, hospitals, mobile home parks, or nursing homes within the coastal high hazard area.



Local governments must amend their Future Land Use Map and coastal management element to include the new definition of coastal high hazard, the coastal high hazard map, and the appropriate mitigation strategies by July 1, 2008.

The amendment removes the provision in the original bill that required a real estate agent to disclose that the property considered for purchase lies within a hurricane evacuation zone.

On April 21, 2006, the State Resources Council adopted three amendments which:

- Amends provisions of the coastal resort area redevelopment pilot project, extending the pilot project until 2014 (8 years), providing flexibility to consider placing the sand on adjacent properties under certain circumstances, and requiring the DEP to report to Legislature regarding the analysis of the economic and environmental value of the project on or before February 1, 2008.
- Removing language from the bill prohibiting the new construction of certain structures, including group homes, hospitals, or nursing homes within the coastal high hazard area.
- Authorizing the installation of sand-filled tubes or similar structures provided certain conditions are met:
  - The US Fish and Wildlife service issues an incidental take permit
  - Adequate sand cover be maintained so that the dune structure is not adversely affected or turtle nesting is not impaired, and
  - The structures will be removed if condition 2 is not met.

The analysis has been changed to reflect the amendments adopted by the Council.