



**Office of Long Island Sound Programs**  
**Guidance on**  
***P.A. 12-101, An Act Concerning the***  
***Coastal Management Act and***  
***Shoreline Flood and Erosion Control***  
***Structures***

In 2012 the Connecticut General Assembly passed Public Act 12-101, An Act Concerning the Coastal Management Act and Shoreline Flood and Erosion Control Structures. This legislation combined a number of initiatives to address sea level rise and to revise the regulatory procedures applicable to shoreline protection, which this fact sheet describes and explains thematically. The full text of the bill can be found at: <http://www.cga.ct.gov/2012/ACT/PA/2012PA-00101-R00SB-00376-PA.htm>, and a section-by-section summary prepared by legislative staff is at: <http://www.cga.ct.gov/2012/SUM/2012SUM00101-R02SB-00376-SUM.htm>

***New Policies Relating to Sea Level Rise***

For the first time, the concept of sea level rise was incorporated into the Connecticut Coastal Management Act (CCMA)'s general goals and policies of coastal planning.

To consider in the planning process the potential impact of a rise in sea level, coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and minimize the necessity of public expenditure and shoreline armoring to protect future new development from such hazards [CGS section 22a-92(a)(5), as amended]

“Rise in sea level,” in turn, was defined in terms of published NOAA historic data, without reference to any projected or modeled increase in future sea levels [PA 12-101, section 2]. However, since the sea level rise provisions apply specifically only to the planning process, and not to regulation of shoreline structures or any other activity, municipalities are not necessarily precluded from considering any potential sea level rise or shoreline inundation scenario in their planning process. Indeed, many experts advocate the use of conservative worst-case scenarios in planning future development.

***Revised Policies Regarding Shoreline Flood and Erosion Control Structures***

The Coastal Management Act contains a number of strong policies encouraging the protection of natural shoreline sedimentation and erosion processes, and discouraging shoreline flood and erosion control structures (also known as “hard” structures or shoreline armoring, such as seawalls, bulkheads and revetments) except in certain specified conditions. Public Act 12-101 modified and explained several of these policies. In particular, houses built after 1980 but before 1995, and cemeteries were added to the list of uses for which erosion control structures may be authorized.

Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, water-dependent uses, or inhabited structures constructed as of

January 1, 1995, cemetery or burial grounds, and where there is no feasible, less environmentally damaging alternative and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts [CGS section 22a-92(b)(2)(J), as amended]

To further explain this section, two terms which have been integral to the interpretation of CMA flood and erosion control structure policies were defined and expanded for the first time. These new definitions offer a number of regulatory options for state and local agencies when addressing shoreline protection applications:

(e) For the purposes of this section, "feasible, less environmentally damaging alternative" includes, but is not limited to, relocation of an inhabited structure to a landward location, elevation of an inhabited structure, restoration or creation of a dune or vegetated slope, or living shorelines techniques utilizing a variety of structural and organic materials, such as tidal wetland plants, submerged aquatic vegetation, coir fiber logs, sand fill and stone to provide shoreline protection and maintain or restore costal resources and habitat; and "reasonable mitigation measures and techniques" includes, but is not limited to, provisions for upland migration of on-site tidal wetlands, replenishment of the littoral system and the public beach with suitable sediment at a frequency and rate equivalent to the sediment removed from the site as a result of the proposed structural solution, or on-site or off-site removal of existing shoreline flood and erosion control structures from public or private shoreline property to the same or greater extent as the area of shoreline impacted by the proposed structural solution. [CGS section 22a-92(e), as amended]

In effect, the new language describes a hierarchy or checklist of considerations that must be satisfied before a flood and erosion control structure can be authorized to protect one of the listed uses:

#### Alternatives

- *Move the house landward* away from floodwaters and wave action;
- *Elevate the house vertically*, preferably to the highest practical freeboard, at least as high as FEMA standards require;
- *Restore or create a dune or vegetated slope* between the house and the water to absorb storm waves and protect against erosion;
- *Create a living shoreline*. "Living shorelines" methods involve restoration of waterfront habitats, often using fill to support tidal wetland vegetation, and have been pioneered in the Chesapeake Bay region. See <http://www.habitat.noaa.gov/restoration/techniques/livingshorelines.html>

#### Mitigation Measures

- *Upland migration of tidal wetlands* can be provided by establishing a structure setback or a rolling easement to ensure that wetlands can colonize upland areas as sea level rises;
- *Beach renourishment* to replace the sand supply that may be adversely affected by a seawall or groin;
- *Compensation* for the hardening of one part of the shoreline by removing the equivalent extent of flood and erosion control structures from another part of the applicant's site or from another site. This approach can be conceptualized as a No-Net-Increase in Shoreline Armoring.

## ***Changes in Procedures for Regulating Shoreline Flood and Erosion Control Structures***

Both DEEP Office of Long Island Sound Programs (OLISP), through its coastal regulatory programs, and municipal zoning commissions, through the coastal site plan review process, regulate shoreline flood and erosion control structures and must implement the substantive policies of the CCMA. PA 12-101 made several adjustments to the regulatory process for such structures, beginning with a clarification of standards for denial of an application:

(f) In the case of any application for a shoreline flood and erosion control structure that is denied on the basis of a finding that there may be feasible, less environmentally damaging alternatives to such structure or that reasonable mitigation measures and techniques have not been provided, the commissioner or the municipal commission, as applicable, shall propose on the record, in writing, the types of feasible alternatives or mitigation measures and techniques that the applicant may investigate, provided this subsection shall not be construed to shift the burden from the applicant to prove that such applicant is entitled to approval of the proposed shoreline flood and erosion control structure or to present alternatives to such structure. [CGS section 22a-92(f), as amended]

This language, which is adapted from existing provisions in the Inland Wetlands and Watercourses Act, simply requires the regulatory body to suggest feasible alternatives or reasonable mitigation measures for any flood and erosion control structure applications which are denied outright on that basis. Such denials have not been common, and the regulatory agency is not required to design or pre-approve an alternative structure, but simply to suggest in writing the types of alternatives or mitigation measures that an applicant should look investigate. If an application is denied on other grounds, such as an incomplete application or a failure to demonstrate that the proposed structure is necessary and unavoidable to protect one of the four specified uses, the regulatory body is not required by PA 12-101 to propose alternatives or mitigation measures.

Other new procedural provisions of PA 12-101 apply only to municipal agencies who must apply the specific CCMA provisions regarding coastal site plan reviews of shoreline flood and erosion control structures, codified at CGS section 22a-109. One provision simply states that an application must be approved if the commission finds, based on the record, that it meets the statutory criteria for approval, and the use proposed to be protected is fundamental to the site's habitability or primary use. For municipalities that have been properly implementing the 22a-109 procedures, this should be business as usual:

A coastal site plan for a shoreline flood and erosion structure shall be approved if the record demonstrates and the commission makes specific written findings that such structure is necessary and unavoidable for the protection of infrastructural facilities, cemetery or burial grounds, water-dependent uses fundamental to habitability or primary use of such property or inhabited structures or structure additions constructed as of January 1, 1995, that there is no feasible, less environmentally-damaging alternative and that all reasonable mitigation measures and techniques are implemented to minimize adverse environmental impacts. [CGS section 22a-109(a), as amended]

Moreover, PA 12-101 exempts "any activity, including living shorelines projects, for which the primary purpose or effect is the restoration or enhancement of tidal wetlands, beaches, dunes or intertidal flats" from the definition of "shoreline flood and erosion control structure." These coastal resource enhancement projects therefore are not subject to the additional municipal procedural requirements that apply to coastal flood and erosion control structures, such as a mandatory coastal site plan review and

referral to OLISP, so as to encourage waterfront property owners to prioritize resource restoration projects over structural solutions. It is important to note that all other CCMA provisions regarding coastal site plan reviews of shoreline flood and erosion control structures remain in effect, and that seawalls, groins, bulkheads, and similar armoring approaches are still strongly discouraged. Thus, it will be important for municipal agencies to ensure that shoreline projects labeled as “living shorelines” actually meet the statutory criteria for not being a flood and erosion control structure. Also, municipal regulations are not required to exempt living shorelines or resource restoration projects from coastal site plan review, to the extent they fall within local jurisdiction. It is expected that most living shorelines projects will probably be within OLISP regulatory jurisdiction, since they would involve in-water work and/or work in tidal wetlands.

### ***Changes in State Coastal Permitting Jurisdiction***

From a regulatory standpoint, perhaps the most significant change brought about by PA 12-101 was the change in coastal permitting jurisdiction for statutes governing the placement of structures, dredging, and fill in tidal, coastal or navigable waters (CGS sections 22a-359 through 22a-363f, inclusive). Through its coastal permitting program, OLISP has had direct regulatory jurisdiction over activities occurring in tidal wetlands since 1970 and/or waterward of the high tide line since 1987.<sup>1</sup> Because the statute provided several methods of field-determining the jurisdictional high tide line, there were occasional disputes and even litigation over the extent of OLISP’s regulatory jurisdiction. As a result, effective October 1, 2012, the “high tide line” is changed to “coastal jurisdiction line” (CJL), which is a fixed elevation that can be derived by a surveyor in accordance with a specified methodology. In cooperation with the Connecticut Association of Land Surveyors (CALS), the CJL was developed to roughly approximate the location of the high tide line that OLISP had been using, and will be adjusted to reflect sea level rise upon the promulgation of tidal data from the next tidal epoch. OLISP has published a set of CJL elevations for each coastal town, with an explanation by CALS of the statutory methodology. It is expected that future coastal permit jurisdictional determinations will be greatly simplified and streamlined as a result of this measure.

### ***Pilot Programs and Other Provisions***

Finally, PA 12-101 contains a number of other provisions relating to sea level rise and adaptation to climate change. These include:

- Explicit mention of the rights of private property owners in the CCMA general goals and policies. Since private property rights are already constitutionally protected and considered in all land use planning and regulation, this measure simply reinforces their significance.
- A requirement that future revisions to the State Plan of Conservation and Development consider risks associated with coastal erosion caused by sea level rise, evaluate the impacts of such erosion on infrastructure and natural resources, and make recommendations for future development and infrastructure siting to minimize the use of erosion-prone areas.
- Authorization for DEEP to establish a pilot program to encourage innovative and low-impact approaches to shoreline protection, including living shorelines techniques, within available appropriations. While no funds have yet been appropriated, the Department may select certain projects for expedited regulatory approval.
- Authorization for DEEP, in cooperation with other partners, to seek funds for a shoreline

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<sup>1</sup> Since 1939 until 1987, the state regulatory jurisdiction line for coastal structures, dredging and fill was at Mean High Water, which also marks the boundary between private and public trust property.

management study to enhance the resilience of coastal communities in the face of coastal storm hazards and sea level rise.

- Authorization for UConn and the CT State University System to develop the science and engineering capacity to support planning and management to enhance the resilience of coastal communities in the face of coastal storm hazards and sea level rise, within available appropriations. Again, no funds have yet been appropriated for this purpose.

### ***To Learn More***

To follow up on the implementation of PA 12-101 or to learn more about other sea level rise, coastal hazards, or other coastal management issues, please contact the Office of Long Island Sound Programs at (860) 424-3034.