

THE MASSACHUSETTS STORMSMART COASTS PROGRAM

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Improving Management of Coastal Floodplains through Targeted Outreach and Assistance to Local Officials

Throughout the Massachusetts coastal zone there is a growing acceptance that current floodplain management practices are untenable. In many communities even minor storm events cause substantial damage to public and private property. Structural protection, much of which was installed decades ago or more, continues to degrade. A recent survey of the existing publicly owned seawalls, bulkheads, revetments, groins, jetties, and breakwaters of one region of the state found more than half in need of repair. Meanwhile, beaches and municipal cofferdams are shrinking.

Managing coastal floodplains is difficult everywhere, but is particularly challenging in Massachusetts where a strong tradition of home rule preempts many possible state regulatory solutions. While the state is by no means powerless (its 1963 Wetlands Protection Act made Massachusetts the first state to adopt regulations protecting wetlands), the Massachusetts political framework explicitly empowers the 78 coastal communities to interpret state land-use regulations (subject to appeal), as well as to adopt their own regulations. Permitting decisions are made by local boards and agencies, which are often staffed by volunteers and have varying experience and expertise with floodplain management issues. Communities have limited funds and time to address their growing lists of challenges as pressure grows to develop the little remaining untouched land, and to replace small summer beach cottages with substantially larger year-round homes. Any realistic effort to improve coastal floodplain management in Massachusetts must acknowledge that these conditions are unlikely to change in the near future.

The StormSmart Coast Program

In the spring of 2008, the Massachusetts Office of Coastal Zone Management launched the StormSmart Coasts program. The program, developed over an 18-month period aims to provide municipal officials with the tools and information to improve the management of coastal floodplains. Rather than reinventing the proverbial wheel, the program attempts, whenever possible, to access the existing wealth of information available in Massachusetts and throughout the nation.

The program is also designed to take advantage of the existing heterogeneity of the state's coastal communities. Rather than creating a goal of getting all communities to a set level, it seeks to move all closer to resiliency, each to

whatever degree is currently politically, economically, and geographically feasible, as determined by the individual community.

StormSmart Coasts was created after extensive consultation with municipal officials working Massachusetts coastal communities. There is great heterogeneity in municipal officials—some are experts in their fields, and some have worked in their positions for decades. Many others are volunteers who have very little technical background in the area in which they are serving their communities. Most expressed a sense of being overworked already, and a reluctance to serve as guinea pigs for new ideas. For these reasons, one of the primary goals of the program is to tap into tested and proven solutions that have, up to now, been presented in ways that are too complex or time consuming for most municipal officials to process. The first to be repackaged was *The Coastal No Adverse Impact* handbook, first developed by the Association of State Floodplain Managers and the NOAA Coastal Services Center. The No Adverse Impact (NAI) approach quickly became a cornerstone of the StormSmart Coasts Program.

No Adverse Impact

The NAI approach was first articulated by the Association of State Floodplain Managers (www.floods.org) in a 2000 white paper. In its simplest sense, it is a “do-no-harm” or “good neighbor” approach that prohibits any landowner from using land in a way that can reasonably be expected to harm other people or property. It does NOT prevent development, but requires that permit applicants address any negative effects that their development may bring.

The benefits of following the NAI approach are considerable, including that NAI:

1. Reduces risk to people and property - Better planned and designed development and public infrastructure is less likely to cause and suffer damage from storms.
2. Saves money - The NAI approach can save landowners from the costs of repairs and the communities can save on cleanup costs.
3. Clarifies a community’s land use goals - By adopting NAI principles, communities can articulate their overarching goals, helping to bring consistency and predictability to permitting.
4. Reduces conflicts with property owners - NAI is not an arbitrary or inflexible “no” to development. It is a performance-based standard, and is neither pro- nor anti-development.

Legal Benefits of No Adverse Impact

Perhaps one of the greatest benefits to following the NAI approach is that it helps protect communities from litigation. Managing coastal floodplains is a challenging endeavor that sometimes seems to put local government's duty to protect people and property in direct conflict with property rights. As our society has grown increasingly litigious, it has become more challenging for municipal officials to regulate without ending up in court. However, extensive legal review shows that the courts at all levels in the United States have been clear in one message: communities have the right and the responsibility to manage land in such a way as to prevent harm.

The NAI approach can help: 1) reduce the number of lawsuits filed against local governments, and 2) greatly increase the chances that local governments will win legal challenges to their floodplain management practices. Regulating in such a way as to prevent harm should help to fend off legal attacks, especially those leveling constitutional or regulatory takings.

The StormSmart Coasts Website mass.gov/czm/stormsmart

The StormSmart Coasts website serves as the primary repository for the program's many components. It is designed to be a continually evolving and updated catalogue to the resources available on the internet and elsewhere. The site also highlights the efforts of coastal communities in Massachusetts.

In response to municipal officials' wishes, the website is designed with a simple interface to enable users to easily find and the information they need. The site is organized around the seven "building blocks" identified by the ASFPM in their *Coastal No Adverse Impact Handbook* (co-developed with the NOAA Coastal Services Center):

1. Hazard identification and mapping
2. Planning
3. Regulations and development standards
4. Mitigation and shore protection
5. Infrastructure
6. Emergency services
7. Public outreach and education

Each building block has its own webpage with a brief description of the problem, and then a series of links to other pages outlining either possible actions that communities can take to reduce their storm-damage risk, or sources of additional information. Whenever possible, pages provide municipal officials with specific contact information for people they can contact with any questions they may have.

The StormSmart Coasts Fact Sheets

The website also houses the program's growing collection of StormSmart fact sheets. These short (generally 2-4 page) fact sheets are either summaries of concepts or tools (an introduction to NAI, the legal framework of coastal zone management, using freeboard to save money and reduce storm damage), case studies (a successful regulatory prohibition of new residence in the floodplain of a Cape Cod town), or combination of information and case study (how two Massachusetts communities leveraged federal funds to elevate homes and utilities above flood waters). The fact sheets are available both in a format to be read in a web browser and as a PDF to be printed and distributed.

The StormSmart Coasts Workshops

The program was launched in the Spring of 2008 with a series of workshops in each region of the Massachusetts coastline. The workshops combined an introduction to the StormSmart Coasts program with local and national experience and expertise on different facets of coastal management in response to the expressed interests of each region.

The Future of StormSmart Coasts

The Massachusetts Office of Coastal Zone Management has dedicated the necessary resources to move StormSmart Coasts out of its development stage and into implementation. A recently selected NOAA Coastal Management Fellow will be dedicated to getting the concepts of the program integrated into the workings of Massachusetts coastal communities. The current plan is for the fellow to work with 2-5 communities to implement StormSmart Coasts tools.

References

- Association of State Floodplain Managers, 2007. *The Coastal No Adverse Impact Handbook*. www.floods.org.
- Kusler, J.A., and E.A. Thomas, 2007. *No Adverse Impact Floodplain Management and the Courts*. The Association of Floodplain Managers, www.floods.org.

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