**Section: Coastal Development**

**TITLE: New Jersey Sea Grant College Program Manual for Coastal Hazard Mitigation**

**WEB LINK:** <http://www.state.nj.us/dep/cmp/coastal_hazard_manual.pdf>

**ISSUES:** coastal erosion, flood reduction, local land-use planning

**DESCRIPTION:** This manual looks at coastal hazard mitigation from many angles. There are descriptions of different coastal hazards, information on mitigation and risk assessment, as well as information on a variety of mitigation techniques such as elevation, shore protection structures, and natural resource restoration. Produced by the New Jersey Sea Grant College Program, this manual may be of interest to coastal property owners, municipalities, and developers. It should be noted that when appropriately sited, constructed and maintained, shore protection structures are effective protection but can have adverse impacts on natural processes. They should always be designed and certified by a professional coastal engineer.

**TITLE: Preserving historic rights of way to the sea: A practical handbook for reclaiming public access in Massachusetts**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/access/rights-to-sea-handbook.pdf>

**ISSUES:** local land-use planning, right of way, access

**DESCRIPTION:** This handbook, developed by the Massachusetts Office of Coastal Zone Management, is a useful tool for municipalities and state/provincial governments. It details how to conduct a historic right of way preservation project. In addition, it includes over 10 case studies, information on coastal property law, and ways that public rights of way are lost.

**TITLE: Hydromodification BMPs Manual for Coastal Georgia**

**WEB LINK:** <http://marex.uga.edu/uploads/documents/Hydromod_Manual_Sept_2009.pdf>

**ISSUES:** coastal erosion, stormwater treatment/management, pollutant/contaminant removal and containment

**DESCRIPTION:** This manual, created by University of Georgia Marine Extension Service, has a chapter dedicated to shoreline stabilization that is relevant to coastal landowners and municipalities. The techniques are divided into vegetative, engineered and integrated practices of stabilization. This manual of BMPs could be of interest to municipalities and state/provincial governments.

**TITLE: Maine coastal property owner’s guide to erosion, flooding and other hazards**

**WEB LINK:** http://www.seagrant.umaine.edu/files/chg/11SlovinskyCHG.pdf

**ISSUES:** coastal flooding, coastal erosion, climate change adaptation

**DESCRIPTION:** Meant as an educational tool for coastal landowners developed by the Maine Geological Survey, this document provides guidance for coastal property owners to develop short and long term hazard management plans. This includes the identification and level of hazards present and strategies to mitigate the hazards.

**TITLE: StormSmart Coasts Fact Sheet 1: Introduction to No Adverse Impact land management in the coastal zone**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/stormsmart/ssc/ssc1-nai.pdf>

**ISSUES:** local land-use planning

**DESCRIPTION:** No Adverse Impact (NAI) is an approach to land management based on a set of “do no harm” principles in community planning/design or evaluation of public and private development activities. NAI is based on seven building blocks: hazard identification and mapping; planning; regulations and development standards; mitigation; infrastructure siting and design; emergency services; and public outreach and education, which are described in-depth in this document. NAI is relevant for coastal land/property owners, developers, and municipalities. StormSmart Coast fact sheets are developed by the Massachusetts Office of Coastal Zone Management.

**TITLE: StormSmart Coasts Fact Sheet 5: Raise your home, lower your monthly payments**

**WEB LINK:** http://www.mass.gov/eea/docs/czm/stormsmart/ssc/ssc5-freeboard.pdf

**ISSUES:** coastal flooding, climate change adaptation

**DESCRIPTION:** Freeboard is the elevation of a building’s lowest floor above predicted flood and storm surge elevations. This fact sheet, written by the Massachusetts Office of Coastal Zone Management, provides estimated costs for the construction of a new structure with freeboard and links to additional freeboard guidance documents relevant for coastal home and property owners.

**TITLE: StormSmart Coasts Fact Sheet 6: Landscaping to protect your coastal property from storm damage and flooding**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/stormsmart/ssc/ssc6-landscaping.pdf>

**ISSUES:** coastal erosion, coastal flooding, climate change adaptation

**DESCRIPTION:** Landscaping coastal properties can stabilize coastal banks and provide protection from storm damage and flooding, making this topic relevant to coastal landowners and municipalities. This document, published by Massachusetts Office of Coastal Zone Management, describes the benefits of plants over engineered structures, how to select appropriate plants, the minimization of maintenance requirement and more.

**TITLE: StormSmart Properties Fact Sheet 1: Artificial Dunes and Dune Nourishment**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/stormsmart/properties/ssp-factsheet-1-dunes.pdf>

**ISSUES:** coastal flooding, coastal erosion, climate change

**DESCRIPTION:** Artificial dunes consist of the creation of dunes via the addition of sediments to beaches. This document covers a variety of design considerations including the appropriate placement of artificial dunes, compatible sediments, and the slope of the dune. This fact sheet was produced by the Massachusetts Office of Coastal Zone Management and is relevant to coastal landowners and municipalities.

**TITLE: StormSmart Properties Fact Sheet 2: Controlling overland runoff to reduce coastal erosion**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/stormsmart/properties/ssp-factsheet-2-erosion.pdf>

**ISSUES:** coastal erosion, stormwater treatment/management, pollutant/contaminant removal and containment

**DESCRIPTION:** Overland runoff is water that is not absorbed into the ground but instead flows overtop of it. It can cause erosion when it runs over bare or sparsely vegetated areas. Many suggestions for reducing overland runoff are described in this document: reduction of impervious surfaces, vegetated swales, rain gardens and much more. StormSmart Fact Sheets are produced by the Massachusetts Office of Coastal Zone Management. This is a relevant topic for coastal landowners and municipalities.

**TITLE: Low Impact Development Stormwater Management Planning and Design**

**WEB LINK:** http://www.creditvalleyca.ca/low-impact-development/low-impact-development-support/stormwater-management-lid-guidance-documents/low-impact-development-stormwater-management-planning-and-design-guide/

**ISSUES:** local land-use planning, stormwater management, pollutant/contaminant removal and containment

**DESCRIPTION:** This manual, which is a collaborative effort between the Credit Valley Conservation Authority and Toronto and Region Conservation Authority, focuses on the management of stormwater. Of particular interest are Chapters 3 and 4 which introduce Low Impact Development (LID) practices and design considerations for structural components. The information provided in this document could be of interest to coastal land/property owners, developers, and municipalities.

**TITLE: Best development practices: A primer for smart growth**

**WEB LINK:** <http://www.epa.gov/smartgrowth/pdf/bestdevprimer.pdf>

**ISSUES:** local land-use planning

**DESCRIPTION:** Smart development is a modern community design technique and this document covers best housing practices, best environmental practices, best transportation practices and best land use practices. It is relevant for municipalities and developers.

**TITLE: Using Smart Growth Techniques as Stormwater BMPs**

**WEB LINK:** <http://www.epa.gov/dced/pdf/sg_stormwater_BMP.pdf>

**ISSUES:** local land-use planning, stormwater management, pollutant/contaminant removal and containment

**DESCRIPTION:** This document is specifically focused on how smart growth development techniques can act as stormwater best management practices. Specific techniques are included in the guidebook: regional planning, infill development, redevelopment, development districts, tree and canopy programs, parking policies, street designs, and stormwater utilities. Developed by the U.S. Environmental Protection Agency, this document is targeted at coastal land/property owners, developers, and municipalities.

**TITLE: Open space residential design - Growth and sprawl on the North Shore**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/cwq/smartgrowth/green-neighborhoods-brochure.pdf>

**ISSUES:** local land-use planning

**DESCRIPTION:** Open space residential design is a technique to maximize the amount of open space preserved in subdivisions without reducing the number of homes built. The economic, environmental, social and recreational benefits of open space residential design are outlined as well as the four steps of this development technique. This is a publication of the Massachusetts Office of Coastal Zone Management and the brochure contains information that could be relevant to coastal land/property owners, developers, and municipalities.

**TITLE: Coastal smart growth: Low impact development case study - Town of Cohasset**

**WEB LINK:** <http://www.mass.gov/eea/docs/czm/cwq/smartgrowth/cohasset-lid.pdf>

**ISSUES:** stormwater management, pollutant/contaminant removal and containment

**DESCRIPTION:** This publication by the Massachusetts Office of Coastal Zone Management and the Executive Office of Environmental Affairs would be of interest to coastal land/property owners, developers, and municipalities.This publication discusses the Town of Cohasset’s experience with Low Impact Development, in particular bioretention cells which treat stormwater runoff prior to entering the town’s stormwater collection system.

**TITLE: The use of BMPs in urban watersheds**

**WEB LINK:** <http://medina.cee.duke.edu/CE123/600r04184.pdf>

**ISSUES:** stormwater management, pollutant/contaminant removal and containment

**DESCRIPTION:** The United States Environmental Protection Agency has developed this manual of BMPs for urban watersheds. There are a variety of BMPs; one of particular note is dry extended-detention ponds which are stormwater basins that intercept stormwater runoff and temporarily hold it for gradual release to the receiving storm sewer system. Modified dry ponds detain urban runoff allowing solids and associated pollutants time to settle out. This manual is aimed at municipalities.