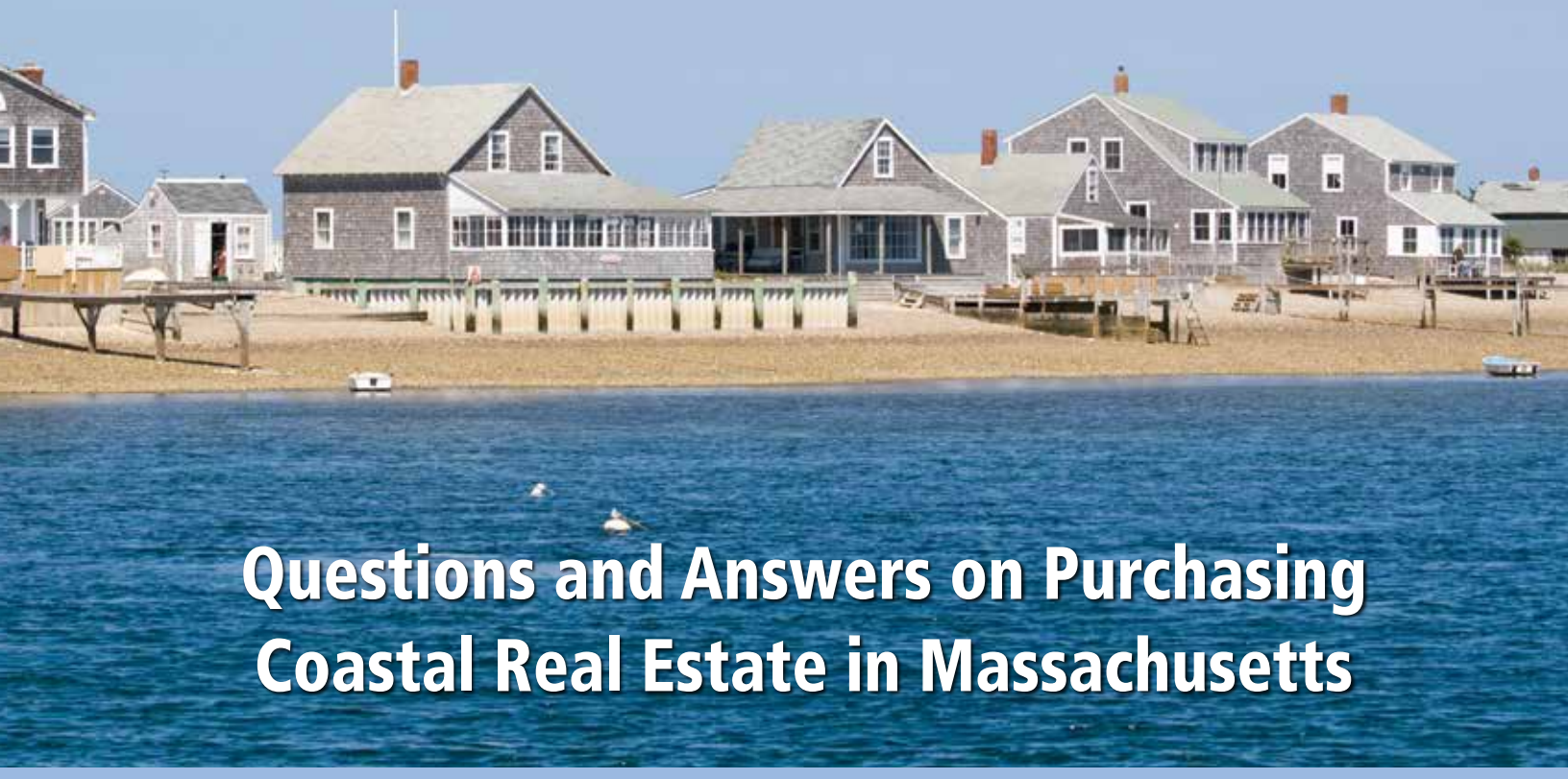
Woods Hole Sea Grant

County of Barnstable Massachusetts

Looking for property near the ocean?



Questions and Answers on Purchasing Coastal Real Estate in Massachusetts

This brochure focuses on questions you should ask as a potential purchaser of coastal real estate, whether you are considering an undeveloped lot or an existing building.

Q1 If I need to do work on the property what kind of permits will I need?

The Massachusetts environmental permitting process protects diverse resources and involves federal, state, and local statutes. A good place to start is the town or city's building inspector as well as the conservation commission, which administers the state Wetlands Protection Act and local wetland bylaws. A 2014 CZM factsheet "Who to Contact and What to Do Before Building or Rebuilding" provides a helpful overview of the environmental permitting process (www.mass.gov/czm/stormsmart-building-rebuilding).

Q2 Is there any erosion, and what causes shoreline erosion?

Damage to buildings and loss of land due to chronic erosion is typically not covered under homeowners or flood insurance. Coastal erosion and beach loss are caused by a variety of factors including: sea-level rise, seasonal changes in wave action, barrier beach migration, storm events, and human impacts to sand supplies.

A gradual rise in sea level also contributes to shoreline erosion. Sea level in Massachusetts has risen about 1 foot over the last century and may increase another 2 to 6 feet more by 2100. Ocean beaches react to sea level rise by eroding farther inland.

Generally, Massachusetts beaches are seasonally narrower in the stormy fall and winter months. The mean high water line may move landward temporarily by more than 50 feet during the stormy season. This seasonal erosion usually recovers for the summer tourist season. Barrier beaches and barrier islands help protect the mainland, but they are not static, they move, and may be drastically impacted by significant storm events. Chronic, long-term erosion is the accumulation of many causes resulting in the permanent loss of sand from the beach and dune. A severe storm can cause dune erosion on the order of tens of feet. While much of the storm-induced dune erosion may be temporary, it can sometimes take years or even decades for the dunes to recover. Some sand may be lost offshore or waves may overwash low beaches, moving sand landward of the beach system and into a bay (or road).

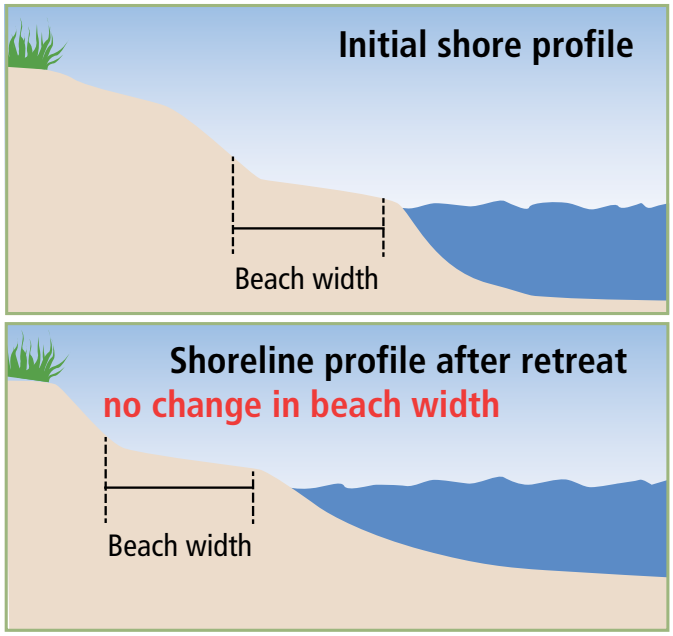
Human impacts, including structures that interfere with natural sand movement patterns, can also lead to erosion. Structures such as seawalls, revetments, and groins, are often built to prevent land from being lost to erosion. However, they can be harmful to the beach by trapping sand and preventing it from being accessible to the beach as illustrated above. Shoreline protection structures may also accelerate erosion on neighboring properties.

Q3 If my oceanfront property becomes threatened by erosion can I:

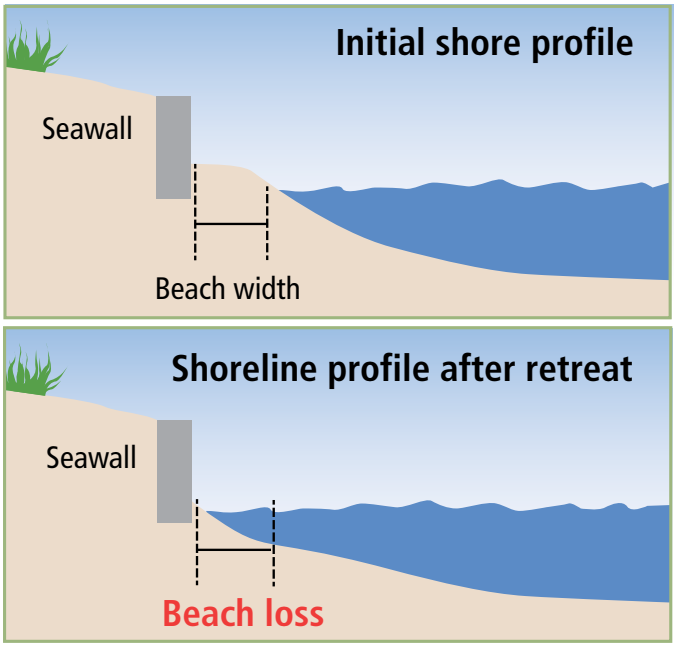
Q: Construct a seawall?

Never on beaches or dunes. Seawalls, bulkheads, revetments, groins, jetties or breakwaters are generally not allowed along the beaches and dunes of Massachusetts. These "hardened" Coastal Erosion Structures (CES) can damage the beach and adjacent properties. A house built before August 10, 1978 may be considered "grandfathered," so that if there is no other way to protect the house a CES may be permitted on a coastal bank.

Q: Replenish the eroding shoreline by placing sand from an outside source onto my property?



If erosion is unimpeded, a beach will maintain its natural width.



Beach loss eventually occurs in front of a seawall for a beach experiencing erosion. Adapted from USACE report CHL-97-1.

Yes. This is often referred to as "beach nourishment" and may be permitted in Massachusetts. However, it provides only temporary relief and requires regular additions of sand for maintenance. It is typically more effective when it extends across a significant portion of the shoreline instead of just in front of a single property.

Q: Move my house away from the eroding shoreline?
Yes. If space allows, a structure can be moved landward on the same lot, or it can be relocated to a new property. It may still have to meet the current zoning setback requirements.

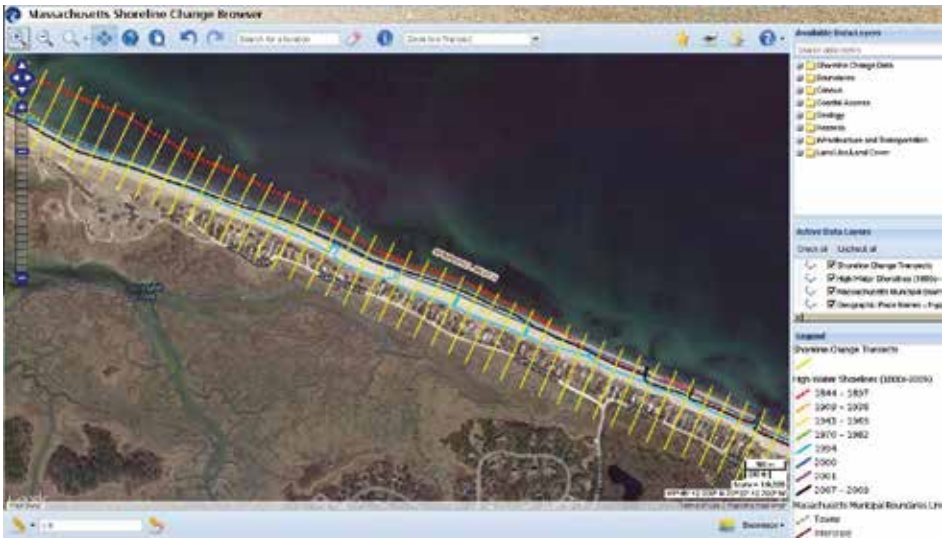
Q: Be required to move my house away from the eroding shoreline?
Yes. Town officials may require owners to move or dismantle erosion-threatened buildings, if imminent collapse creates a hazard. (For information on site-specific erosion control projects, contact your local conservation commission agent).

Q4 If there is an erosion control project at the site, what is involved with repair or maintenance?

No shoreline stabilization project permanently stops all erosion and storm damage. The level of protection and frequency of repair depends on the structure and site-specific conditions (i.e., exposure to storms). All options require maintenance and many require steps to address adverse impacts to the shoreline system, called mitigation. There may be ongoing requirements for beach nourishment or other conservation-related requirements in the Order of Conditions that initially permitted the structure. Check with your local conservation commission on any existing requirements (USACE, Chapter 91, etc.) or potential future conditions that might apply to repair to the structure.

Q5 Can I rebuild or repair my building when it is damaged by a coastal storm, fire or other hazard?

Maybe. If the cost to repair the damage is less than 50 percent of the building's market value immediately prior to the damage, you may be able to repair it at its original location. However, if the building is more than 50 percent damaged, repairs will likely have to meet the latest setback requirements, floodplain regulations and other building code requirements. Examples include requirements to elevate the structure above flood elevations or install an open foundation in high hazard areas. Permits are required for rebuilding as if it was new construction. Repair or replacement of a building may be prohibited if erosion has reduced the distance between the structure and the water to less than the currently required distance. Determine if the lot and building meet setback requirements today and if the building would be eligible for replacement, keeping in mind that erosion may make the lot unbuildable in the future.



The goal of the Massachusetts Office of Coastal Zone Management (CZM) Shoreline Change Project is to help inform the decisions of coastal managers, shorefront landowners, and potential property buyers who need information on shoreline trends, including erosion and accretion rates. Shorelines with transects were developed and are distributed via an interactive website. (Available at http://www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts/shoreline-change/)

Q6 Is the property in an area of flooding and what does that mean? And what does it mean from a permitting stand point if I want to do improvements?

Ask your real estate agent and the town planning office if the property is in a mapped floodplain, if it has ever been flooded, what is the flood depth, wave action, if it is subject to any other hazards, and what building or zoning regulations are in effect.

The Federal Emergency Management Agency (FEMA) releases Flood Insurance Rate Maps (FIRM) which are the official maps that show flood and risk premium zones. See example at upper right. Risk zones indicated on FIRMs provide a basis for establishing flood insurance coverage premium rates offered through the National Flood Insurance Program (NFIP). The FIRM illustrates the extent of flood hazards in your community and is used to determine who must buy flood insurance and the floodplain development regulations that apply in the flood risk zones depicted. In addition to federal and state regulations, each town may have by-laws that further regulate flood zones. Each town regulates a bit differently. Check with the town zoning, building and conservation departments to see how the flood zone of the property may affect future permitting.

In addition to the effective FIRM, a preliminary FIRM may have been released for your community. An updated FIRM may affect more than just your flood insurance rate.

Q7 Will I need flood insurance and how can I avoid higher premiums?

If the building is located in the 100-year floodplain (1% chance of flooding in a given year), flood insurance will be required by most federally backed mortgage lenders for the life of the loan. If a loan is not federally insured or there is no loan, no law requires flood insurance. However, even if not required, when building or buying near the ocean flood insurance is always a good idea. Ask an insurance agent how much a flood insurance policy would cost and any limits on coverage. Private insurance coverage may be available for excess flood coverage or property not eligible for the for the National Flood Insurance Program (NFIP), the most common flood insurance in the U.S.

NFIP policies are written by private insurance companies and include federally-mandated terms and costs. Discounts on annual premiums are available for buildings in some flood zones if constructed above the minimum floor elevation standards. For information about flood insurance and discounts, contact your local insurance agent.

In a 100-year floodplain a building has a 26 percent chance of being flooded during a 30-year mortgage. On average, 20 percent of all flood insurance claims paid by the NFIP are for property outside of mapped flood zones. Homeowners, business owners, and renters can all buy flood insurance as long as their community participates in the NFIP.

Q8 I hear flood insurance rates are increasing. What's going on?

Two main factors have made it difficult to estimate flood insurance — updated FIRMs and the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12).

FIRMs are prepared for each flood-prone community through the NFIP, as explained in Q 6. Efforts to make the maps more accurate have continued since the first flood maps were released, and you can expect local flood maps to continue to be updated in the future. If changes to the effective flood map indicate that a property is now in the floodplain, or that the potential depth of flooding is deeper this may make flood insurance more expensive. Check to see if there is a new effective FIRM or a preliminary FIRM that may affect your insurance rates.

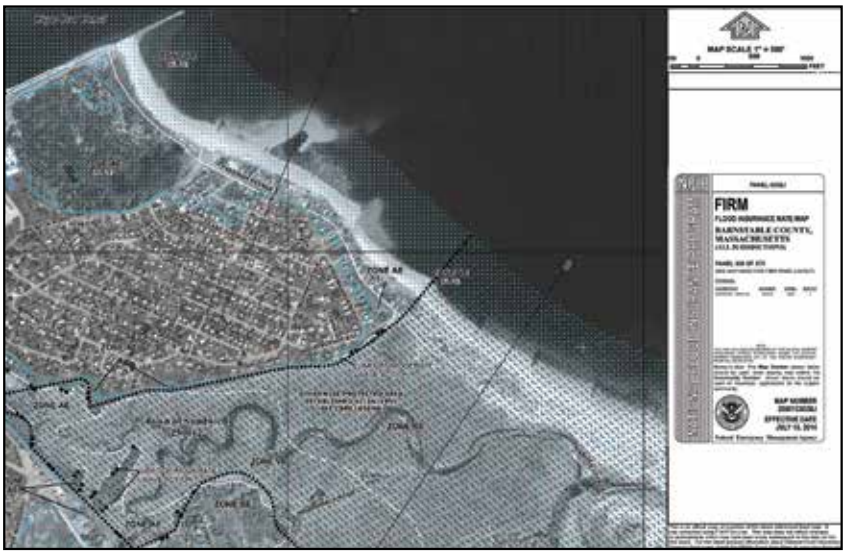
The BW-12 was intended to raise rates to reflect true flood risk, make the program more financially stable, and change how FIRM updates impact policyholders by removing subsidies and grandfathering. In March of 2014, Congress enacted the Homeowner Flood Insurance Affordability Act (HFIAA), which affects many of the reforms enacted by BW-12. In addition to capping annual rate increases, and reinstating grandfathering, the HFIAA repeals the property sales trigger that had previously required new homebuyers to pay a full-risk rate. Now homebuyers will in most cases receive the same status as the seller.

The Massachusetts legislature is considering a bill tying the level of

In the example below, adding a small amount of height has very little effect on the look of a home, but results in a substantial flood insurance savings.
Image courtesy of MassCZM, more infomation available at www.mass.gov/eea/docs/czm/stormsmart/ssc/ssc5-freeboard.pdf

WITH three feet of freeboard
Annual flood insurance: A zone = $552, V zone = $3,780

WITHOUT three feet of freeboard
Annual flood insurance: A zone = $1,716, V zone = $10,536



required flood insurance to the outstanding mortgage balance instead of the full house replacement value. Your insurance agent will be able to tell you more about these and future changes that may affect the cost of flood insurance.

Q9 If I purchase undeveloped oceanfront property, where should I build on the lot? What building construction features help reduce or prevent storm damage?

For permitting, rules, and best practices when building near the coast, refer to Who to Contact and What to Do Before Building or Rebuilding (www.mass.gov/czm/stormsmart-building-rebuilding).

Q10 What does it mean to be within an ACEC?

Areas of Critical Environmental Concern (ACEC) receive special recognition because of the quality, uniqueness and significance of their natural and cultural resources. ACEC designation creates a framework for local and regional stewardship of critical resources and ecosystems. Additional regulations may be present that preserve, restore, or enhance the resources of the ACEC, and ensure that activities are carried out so as to minimize adverse effects on the environment. (More information available from your local conservation commission and and www.mass.gov/eea/agencies/dcr/conservation/ecology-acec/).

Q11 Is the waterfront structure on the property properly permitted and licensed?

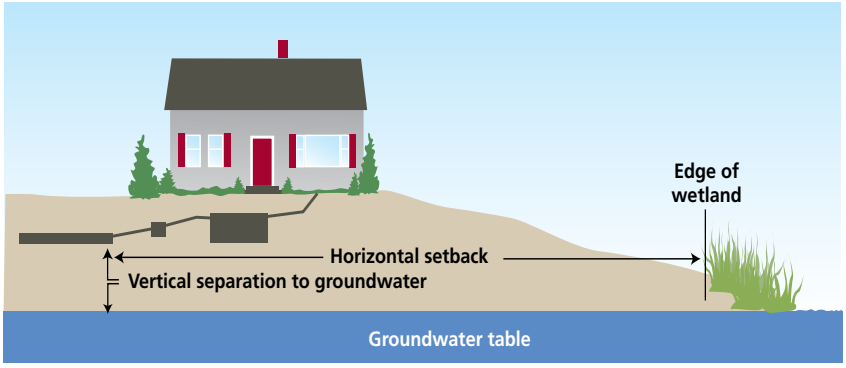
If there is a waterfront structure on the property it needs to be properly permitted and licensed, regardless of the age of the structure. MassDEP (under M.G.L. Chapter 91) authorization is required for any waterfront structure (including seawalls, revetments, bulkheads, docks, piers, etc.) that are located in the intertidal zone (i.e., below Mean High Water). Other agencies approving waterfront property use include the U.S. Army Corps of Engineers, Coastal Zone Management, Division of Fisheries and Wildlife, and local conservation commissions. (More information is available from your local conservation commission and http://www.mass.gov/eea/agencies/massdep/water/watersheds/chapter-91-frequently-asked-questions.html).

Q12 Are there restrictions on landscaping or fertilizer use near coastal resources?

As runoff flows towards the shoreline, coastal resource areas provide a natural filter where sediments can settle, and/or where vegetation can uptake nutrients. In Massachusetts, many towns restrict mowing, plant types, and the use of fertilizers. Some do not allow any fertilizers on or in close proximity to the shoreline. Check with your local conservation commission for the town's regulations. If you plant a buffer of native trees, shrubs, and deep-rooted grasses between maintained areas of your yard and the shore you can slow shoreline erosion, filter sediments and pollutants, and beautify the yard. (For more info on coastal landscaping: www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts/coastal-landscaping/).

Q13 I've always had a sewer hookup, how might buying a property with a septic system affect me?

Typically, when properties are sold, on-site system inspections are required. The seller is the legally responsible party required to upgrade a failing system. New septic systems are subject to setbacks from wetlands and groundwater, as well as prohibitions within certain "sensitive" areas. Your first contact for specific questions about the septic system should be the local board of health. (For more info: http://www.mass.gov/eea/agencies/massdep/water/wastewater/septic-systems-title-5.html).



The terms "setback" and "separation" refer to the position of a septic system relative to a physical feature. A horizontal setback is the distance from a septic system component to a land-surface feature such as a property line, wetland, private well, public water supply etc. Vertical Separation refers to the distance between the bottom of the leaching facility and the groundwater. These requirements are among the most crucial aspects of the code in respect to protecting the public health and the environment.

Adapted from http://www.learntitle5.org/Module2.PDF

With more than 1,500 miles of coastline, Massachusetts boasts some of the most spectacular beaches in the nation.

Before buying, you should be aware of other factors that accompany the pleasures of owning property near the beach. Some areas are particularly vulnerable to ocean forces, such as storms and beach erosion that can threaten your prospective property and affect its value.

DO

- ✓ Research the shoreline history. Get a coastal hazard assessment from a professional if you're not sure or have concerns about the erosion history.
- ✓ Determine if the land has experienced flooding. Determine if all buildings are elevated above mapped flood elevations.
- ✓ Gain an understanding of the local coastal processes and wave conditions, and how the beach changes seasonally.
- ✓ Maintain the natural dune features and native plants around the shoreline area.

DON'T

- ✗ Build structures within a hazardous coastal area that are likely to be threatened by flooding, waves, or erosion.
- ✗ Alter, grade, trample on or reduce the height of the coastal dune.
- ✗ Assume the shoreline is stable just because it looks wide.
- ✗ Assume you will be granted an authorization for a shoreline structure just because the shoreline is eroding. There are specific criteria that must be met in order to obtain permission for shoreline structures.

Additional Information

Coastal Zone Management: www.mass.gov/czm

StormSmart Coasts: www.mass.gov/czm/stormsmart

Woods Hole Sea Grant
www.whoi.edu/seagrant

Cape Cod Cooperative Extension
www.capecodextension.org/marine-programs

National Flood Insurance Program
www.floodsmart.gov

Summary of Coverage
www.fema.gov/library/viewRecord.do?id=3011

Local Officials
Call the local town hall. Conservation and Planning departments are a good place to start.

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Modified in part from "Questions and Answers on:
Purchasing Coastal Real Estate in North Carolina"
by Lisa Schiavinato, Walter Clark, and Spencer Rogers.
North Carolina Sea Grant College Program.

This brochure would not have been possible without support and input from numerous individuals, including Kristin Andres (Town of Chatham), Rebecca Haney (Massachusetts CZM), Elizabeth Jenkins (Town of Barnstable), Maria McFarland (Town of West Tisbury), Stacey Rivet (William Raveis Real Estate), and Richard Zingarelli (Department of Conservation and Recreation).

Design by Lianne Dunn Design & Illustration (www.LianneDunn.com).

Financial support for the this project was generously provided by Woods Hole Sea Grant (NOAA Award NA14OAR4170074, publication no. 14-201) and the Barnstable County Cape Cod Cooperative Extension.

Version 1. 11-2014