

# Plan to Protect **How Communities Can Prepare for Climate Change**

## Workshop Agenda

8:00 – 9:00 am **Sign-in and Continental Breakfast**

8:15 – 8:45 am **An Overview of Climate Change (Optional)**

For attendees who want a firm understanding of climate change science and likely impacts for New England. This presentation will underscore why this issue is a priority concern for coastal communities.

9:00 – 9:15 am **Welcome, Introductions & Opening Remarks**

*Tonna-Marie Rogers, Coastal Training Program Coordinator, Waquoit Bay National Estuarine Research Reserve (WBNER)*

## Morning Sessions (9:00 am - 12:15 pm)

### **Climate Change is Here: Adapt or React**

*Dr. Lynne Carter, Director, Adaptation Network*

This presentation will set the stage for the day by explaining what is meant by adaptation in the context of climate change.

### **Getting Ready for Changes in Precipitation: A City's Approach to Identifying Risk and Costs for Culvert Infrastructure**

*Michael Simpson, Director, Resources Management and Conservation Program, Antioch University New England*

Intensified precipitation from climate change is expected to stress civil infrastructures. This session will present findings from a study conducted in Keene, NH which assessed the percentage of existing stormwater drainage culverts that are likely to be undersized by mid-21<sup>st</sup> century. Results were used to recommend culvert improvements. This specific and quantifiable vulnerability assessment can be replicated in other communities.

### **Planning for Fires: Using Firewise to Adapt to Future Climate Conditions**

*Michele Steinberg, Communities Support Manager, National Firewise Communities Program*

Climate change is bringing wildfire conditions to places east of the Mississippi that have little historical experience with this natural phenomenon. Barnstable and Plymouth counties are at high risk for wildfires. This session will discuss the conditions that set the stage for more and larger wildfires, and how community decision-makers and residents can use existing tools to plan for and adapt to these changing conditions.

**Lunch** 12:15 - 1:15pm (provided)

## Afternoon Sessions (1:15 pm - 4:00 pm)

### **Early Experiences in Climate Change Adaptation: Lessons from the Deer Island Wastewater Treatment Plant**

*Stephen Estes-Smargiassi, Director of Planning, Massachusetts Water Resources Authority (MWRA)*

This case study will explain how the MWRA made adjustments to the design and construction of the Deer Island Wastewater Treatment Plant in Boston to take into account future sea level changes and the long (50 – 100 yrs) expected service life of the plant.

### **Planning for Sea Level Rise and Shoreline Change at the Local Level**

*Rob Thieler, United States Geological Survey*

This session will present findings of a study examining current and potential future conditions of the Town of Falmouth's south shore. Problems such as armoring and diminished sand supply to beaches downstream of jetties are expected to be exacerbated by sea level rise. The study recommends actions to restore viability to the coastal system.

### **Sea Level Rise Adaptation & Response Planning in Maryland**

*Gwen Shaughnessy, Maryland Department of Natural Resources*

### **Next Steps: Linking Hazard Mitigation and Climate Adaptation Planning on Cape Cod**

*Stacey Justus, Coastal Resources Specialist, Cape Cod Commission*

This session will explain an upcoming opportunity for interested Cape municipalities to receive technical assistance to develop climate adaptation plans. This exercise will be coupled with updating hazard mitigation plans. The planning process will draw on FEMA guidance for hazard mitigation plans, detailed climate model projections for this region, and adaptation planning tools and resources.

**Wrap-up and Evaluation** – *Tonna-Marie Rogers, WBNER*

## Working Sessions

Participants will discuss how to apply lessons and best practices from each case study to their area.

**Working sessions will follow morning and afternoon presentations.**

## Workshop Location

**Cape Cod & Islands Association of REALTORS Conference Center  
22 Mid-Tech Drive, W. Yarmouth**

Directions: From Route 6 (Mid-Cape Highway), take exit 7, then left onto Higgins Crowell Road, then left onto Mid-Tech Drive.

## ONLINE REGISTRATION

**[www.waquoitbayreserve.org](http://www.waquoitbayreserve.org)**

### Steps to easy on-line registration:

1. Go to the Reserve's home page
2. Click on FULL CALENDAR
3. Scroll to March 2009
4. Click on the **Plan to Protect** Workshop
5. **FIRST TIME ONLINE REGISTRANTS:** please choose "Add me as a user" and fill in the appropriate information. Remember to hit **SAVE** when finished. **This process will only need to be done once.**
6. If you have previously registered for a workshop, just type in your email address and hit LOGON to review your information and register.

**Your email address is your User ID**

**Workshop information please contact:  
Tonna-Marie Rogers at 508-457-0495 x110  
or [tonna-marie.surgeon-rogers@state.ma.us](mailto:tonna-marie.surgeon-rogers@state.ma.us)**

**Registration information please contact:  
Laurie Tompkins at 508-457-0495 x108  
or [laurie.tompkins@state.ma.us](mailto:laurie.tompkins@state.ma.us)**

# Plan to Protect

## Program Description

Much effort is being expended in the scientific community to better understand our climate system and how people and ecosystems influence and may be affected by climatic shifts. Most scientists now agree that climate change is already occurring. Impacts including increased temperatures, sea level rise and more intense storms are being felt globally. Recent model projections indicate that the future climate regime will be different than that of the past. As a result, relying on historic climate data alone will not be sufficient to adequately plan for the future.

In order to protect people, infrastructure and the environment, communities will need to enter a new era of planning that specifically integrates changing climate dynamics. This type of adaptive planning is neither easy nor straightforward given that resources are limited and there is uncertainty in climate predictions. Decision-makers therefore need practical information and guidance to begin this process. Ultimately, unless advancements in our understanding of climate become incorporated into the fabric of decision-making at the local level, they fall short of benefiting the public good.

The *Plan to Protect* workshop is designed to help decision-makers learn about how communities can prepare for climate change. Case studies demonstrating how different communities have approached adaptation planning will be presented with a view to extracting transferable lessons and practices from these models. The workshop will also kick-off an opportunity for Cape towns to develop climate adaptation plans.



**Adaptation Network**

WAQUOIT BAY  
NATIONAL  
ESTUARINE  
RESEARCH  
RESERVE  
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# Plan to Protect

**How  
Communities**



**Can  
Prepare for  
Climate Change**



*Courtesy of NOAA Photo Library*

**Wednesday, April 8, 2009**

**9:00 am - 4:00 pm**

Cape Cod & Islands Association of  
REALTORS Conference Center  
22 Mid-Tech Drive, W. Yarmouth

*Co-Sponsors:*  
**Waquoit Bay Reserve Coastal Training Program**

**Adaptation Network**

**Cape Cod Commission**

**Massachusetts Department of  
Conservation & Recreation**

**Citizens for the Protection of Waquoit Bay**

**Who Should Attend?**  
County Officials - Selectmen  
Town Administrators - Planners  
DPW Directors - Engineers  
Conservation Commissioners - Natural  
Resource Managers - Environmental  
Organizations  
Coastal Managers - Water/Water Quality  
Boards - Environmental  
Boards