

COASTAL SMART GROWTH AND RESILIENCY

Lynn Desautels, Smart Growth Program, US EPA

Susan Fox, Coastal Services Center, NOAA

Pam Rubinoff, Rhode Island Sea Grant

Sarah van der Schalie, Office of Ocean & Coastal Resource Management, NOAA

Randall Schneider, Office of Ocean & Coastal Resource Management, NOAA

KEYWORDS: smart growth, coastal development, hazard resiliency, coastal hazards, climate change

PURPOSE OF THE CAFÉ SESSION

The purpose of the café session is to: (1) discuss how smart growth approaches can help waterfront communities plan for and address hazard resiliency and impacts of climate change and (2) identify a list of recommendations that provides specific guidance on addressing coastal hazards and climate change impacts when implementing smart growth.

BACKGROUND INFORMATION

In addition to addressing development pressure, population growth, and economic change, coastal and waterfront communities must consider hazards, including those related to climate change. The U.S. coast confronts a wide range of natural hazards including hurricanes, floods, landslides, tsunamis, shoreline erosion, and land subsidence. These coastal hazards threaten both lives and property—a problem that becomes more pressing as the coastal population continues to rise. Coastal communities with natural resource-based economies are also particularly vulnerable to the impacts associated with climate change. States and local governments have launched initiatives to reduce greenhouse gas emissions to address climate change; however, this is only part of the solution. Communities are also thinking about how they will adapt to the changing climate and become more resilient.

Resilience to coastal hazard events is inextricably linked to the siting and design of development, as well as the condition of the infrastructure that supports it. Buildings and infrastructure located in highly vulnerable areas are at severe risk of damage or destruction. The built environment can either support community resilience by creating well-connected lifelines of roads and support facilities or create disconnected areas ill-equipped to respond to crisis.¹

Consideration and protection of the natural environment are also critical aspects of resiliency. Coastal floodplains, for example, perform a number of important functions,

¹ Jacob, J.; Showalter, S. 2007. *The Resilient Coast: Policy frameworks for adapting the built environment to climate change and growth in coastal areas of the U.S. Gulf of Mexico*. Texas Sea Grant.

including floodwater conveyance and storage, flood velocity and peak reduction, erosion control, water quality maintenance, and ecosystem support.²

To help communities address their unique waterfront characteristics and improve development's environmental, economic, and public health effects, an EPA, NOAA, and International City/County Management Association collaborative team drafted the Waterfront and Coastal Smart Growth Elements. The Elements, targeted to stakeholders involved in the planning and development process, provide guidance for communities to build in ways compatible with their natural assets that helps create great places for residents and visitors alike. This café conversation will discuss how implementing the Waterfront and Coastal Smart Growth Elements can improve community resiliency to coastal hazards.

Sarah van der Schalie
NOAA Office of Ocean and Coastal Resource Management
1305 East-West Highway, SSMC4, Room 11237
Silver Spring, MD 20910
Sarah.vanderSchalie@noaa.gov
(301) 563-7106

²Task Force on the Natural and Beneficial Functions of the Floodplain. 2002. *The Natural & Beneficial Functions of Floodplains: Reducing Flood Losses by Protecting and Restoring the Floodplain Environment*. A Report for Congress. FEMA 409. Washington, D.C.: Federal Emergency Management Agency.