Opportunities for Enhancing Community Resilience

Katie Spidalieri
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May 30, 2019
Georgetown Climate Center

Policy development

A resource to states and communities

Convening and staffing climate initiatives

Provide opportunities for students
Welcome to the Adaptation Clearinghouse
An online database and networking site that serves policymakers and others who are working to help communities adapt to climate change

Search the Clearinghouse
By Keyword  By State

Put the Power of the Adaptation Clearinghouse to Work for You
- Customize the Adaptation Clearinghouse to meet your needs
- Receive updates about new resources that match your interests
- Connect with other professionals

Green Infrastructure Toolkit

State and Local Adaptation Plans
States and communities around the country have begun to prepare for the climate changes that are already underway. This planning process typically results in a document called an adaptation plan.

Below is a map that highlights the status of state adaptation efforts. Click on a state to view a summary of its progress to date and to access its full profile page. State profile pages include a detailed breakdown of each state's adaptation work and links to local adaptation plans and resources. Please move the map to view Alaska and Hawaii.
OVERVIEW

- Climate change impacts
- Local tools
- Legal feasibility framework
- Takings analysis and strategies to minimize legal liability
- Managed Retreat Toolkit
HIGHER SEA LEVELS

We are here

0.7 to 8 feet by 2100 (NCA 2018)
ADAPTATION OPTIONS

Protect

Accommodate

Retreat

Graphic courtesy of the Integration and Application Network, University of Maryland Center for Environmental Science (ian.umces.edu/symbols/).
ROLES AND PLAYERS

Local
- Zoning ordinance
- Floodplain ordinance
- Local coastal program

State
- State coastal management laws
- State wetlands laws

Federal
- Clean Water Act
- Rivers and Harbors Act
PLANNING:
Baltimore, MD Hazard Mitigation Plan

**IMPLEMENTATION GUIDELINES**

<table>
<thead>
<tr>
<th>Lead Agency</th>
<th>MOEM</th>
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<tbody>
<tr>
<td>Stakeholders</td>
<td>BCRP (Forestry), BGE, Building Owners, DGS, DOT, DPW, Exelon, PSC, Utility customers, Veolia, Wheelabrator</td>
</tr>
<tr>
<td>Alignment with Goals</td>
<td>Goals 2 and 3</td>
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<tr>
<td>Connection with Existing Efforts</td>
<td>Building Standards and Zoning Codes; CAP; ESF-12; MDNR</td>
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<tr>
<td>Timeframe</td>
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CITY OF BALTIMORE
Disaster Preparedness and Planning Project
A COMBINED ALL HAZARDS MITIGATION AND CLIMATE ADAPTATION PLAN
OCTOBER, 2013
FLOODPLAIN REGULATIONS:

Baltimore, MD
PLANNING:
Norfolk, VA
Vision 2100 Plan
RESILIENCE QUOTIENT SYSTEM:
Norfolk, VA
ADVISORY CLIMATE
RISK AREA:
Durham, NH
ADAPTATION CHECKLIST:

Spaulding Hospital, Boston, MA

Elevated to 2085
100-year floodplain

Operable windows

Critical equipment on roof
LOCAL TAXATION:
Measure AA
San Francisco Bay

WE DID IT
Thank you Bay Area!

YES on AA
CLEAN AND HEALTHY BAY
GREEN INFRASTRUCTURE: 
District of Columbia
PLANNING: Resilient Edgemere (New York City)

Credit: Resilient Edgemere Community Plan (p. 22)
LOCAL BUYOUTS:

Charlotte-Mecklenburg County, NC

Credit: Charlotte-Mecklenburg Storm Water Services
SETBACKS:

Kauai, HI

Credit: Jonathan Jay, Island Breath
ECOSYSTEMS:
Yankeetown, FL Natural Resource
Adaptation Action Area

Credit: Isaac Babcock/Special to USA TODAY NETWORK - FLORIDA
RECEIVING COMMUNITIES:

Louisiana

- ST. JOHN THE BAPTIST
- LAFOURCHE
- TERREBONNE
- ST. TAMMANY
- JEFFERSON
- PLAQUEMINES

LA SAFE
Louisiana’s Strategic Adaptations for Future Environments
<table>
<thead>
<tr>
<th>Question</th>
<th>Analysis</th>
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<tbody>
<tr>
<td><strong>Authority?</strong></td>
<td>• Local authority to zone and plan</td>
</tr>
<tr>
<td></td>
<td>• State agency roles</td>
</tr>
<tr>
<td><strong>Compliance with state laws?</strong></td>
<td>• Coastal act</td>
</tr>
<tr>
<td></td>
<td>• Floodplain requirements</td>
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<tr>
<td></td>
<td>• Wetlands regulations</td>
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<tr>
<td></td>
<td>• Historic preservation</td>
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<tr>
<td><strong>Compliance with federal laws?</strong></td>
<td>• National Flood Insurance Program</td>
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<td></td>
<td>• Clean Water Act</td>
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<tr>
<td></td>
<td>• Americans with Disabilities Act</td>
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<tr>
<td><strong>Constitutional questions?</strong></td>
<td>• Takings</td>
</tr>
<tr>
<td></td>
<td>• Substantive due process</td>
</tr>
</tbody>
</table>
Lucas v. South Carolina Coastal Council

- **Per se takings**: A takings will result if a property owner is deprived of all the economically beneficial uses of his/her property.
Penn Central Transportation Co. v. New York City

1) The public purpose served;
2) Effect of the regulation on the owner, including the potential decrease in value of the entire property; and
3) The property owner’s investment-backed expectations in the property.
TAKINGS EXAMPLE:

Chatham, MA

Credit: Town of Chatham, Massachusetts
A legal challenge that has to be considered.

However . . .

There are ways to minimize legal risk. For example:

- Purpose and findings
- Tailor government actions to perceived or actual risk
- Notice (e.g., real estate disclosures)
GCC’s MANAGED RETREAT TOOLKIT

*Tentative sections may include:*

- Legal and policy considerations
- Planning (e.g., CZM, comprehensive plans)
- Buyouts and acquisitions
- Regulatory tools: Limiting new development and redevelopment in at-risk areas
- Infrastructure
- Ecosystems and migration corridors
- Preparing “receiving” communities
- Funding
- Equity
- Communication strategies

For More Information and Additional Resources:

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http://www.GeorgetownClimate.org
http://www.AdaptationClearinghouse.org