

# Opportunities for Enhancing Community Resilience

Katie Spidalieri

2019 CAW and CCAP Annual Meeting

May 30, 2019

GEORGETOWN  
CLIMATE CENTER

# Georgetown Climate Center

Policy development



A resource to states  
and communities



Convening and staffing  
climate initiatives



Provide opportunities  
for students

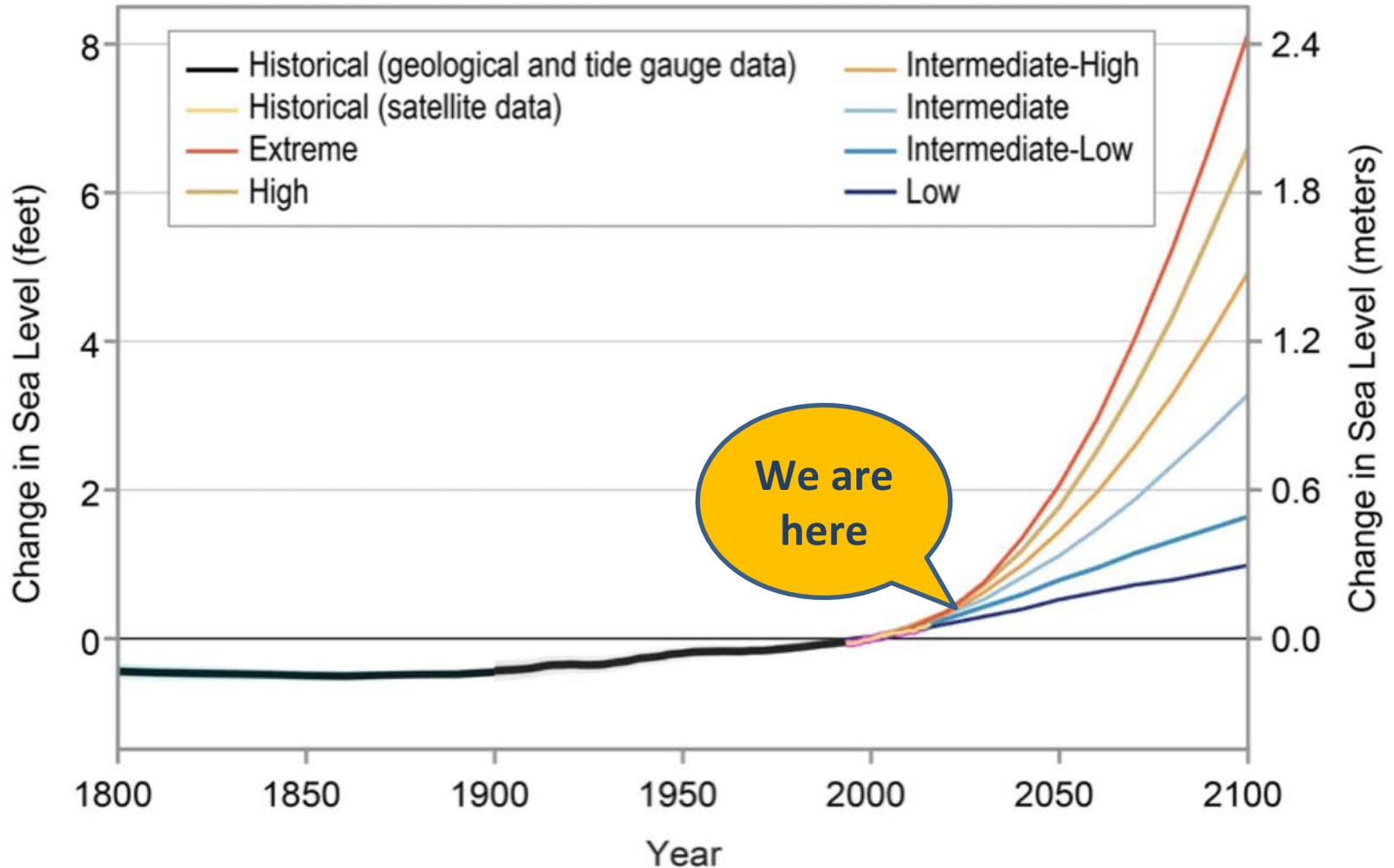




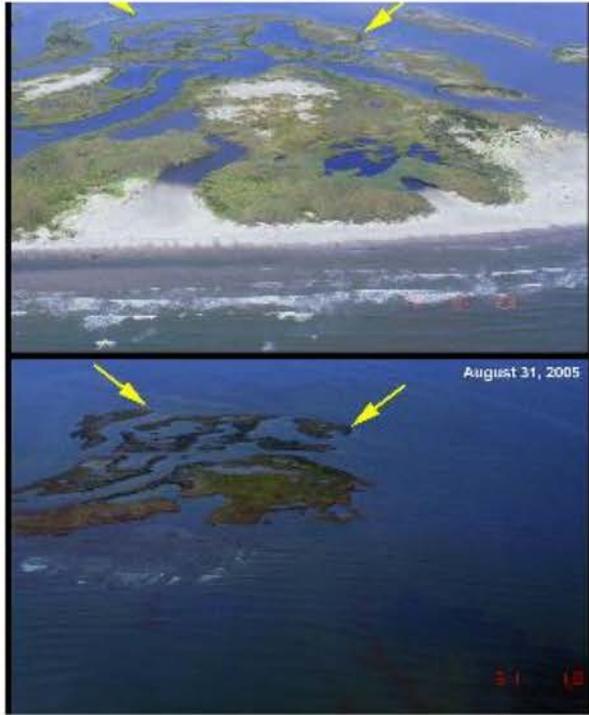
# OVERVIEW

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

# HIGHER SEA LEVELS



**0.7 to 8 feet by 2100 (NCA 2018)**



# ADAPTATION OPTIONS

**Accommodate**

**Retreat**



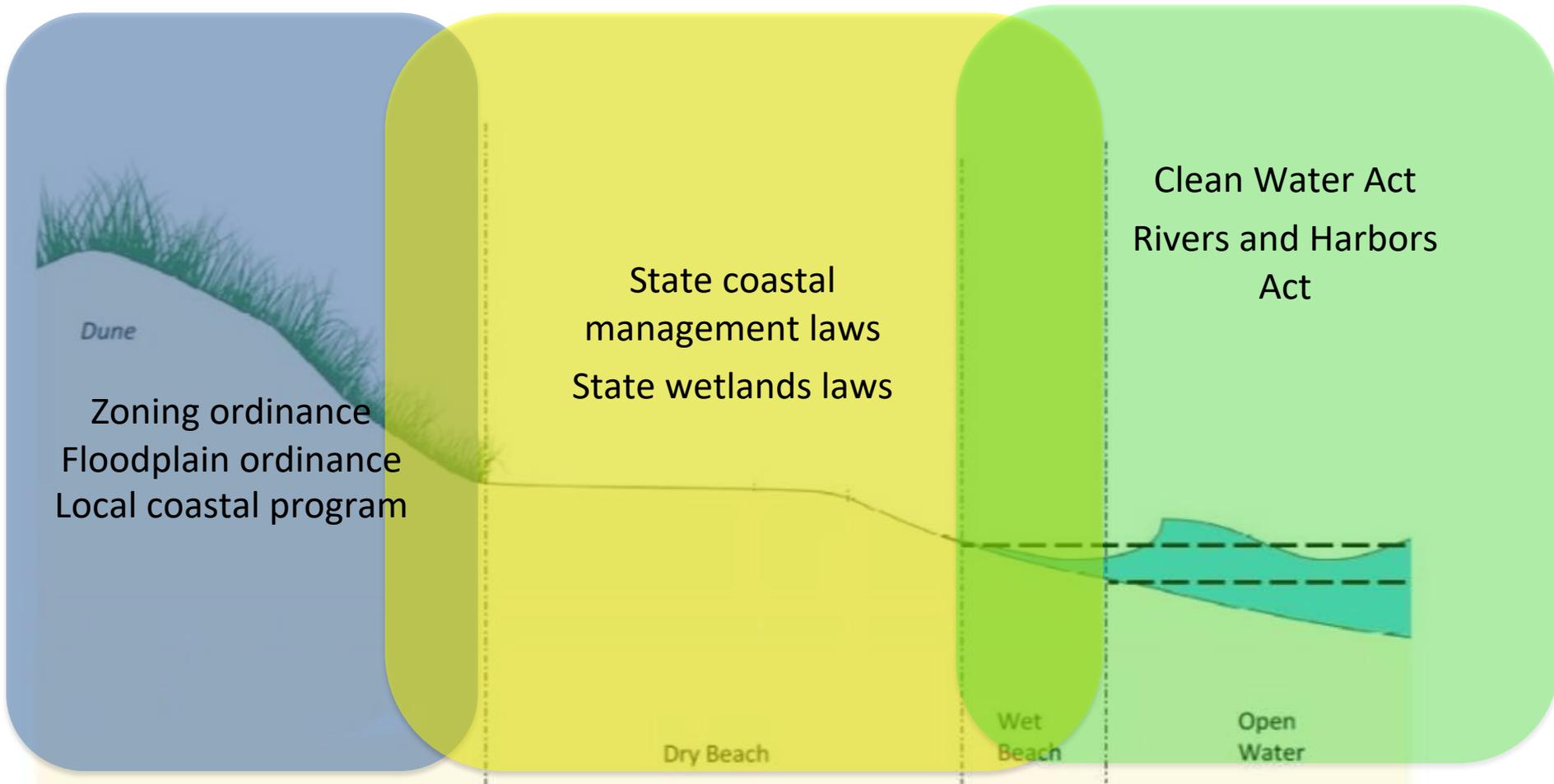
**Protect**

# ROLES AND PLAYERS

Local

State

Federal



# PLANNING:

## *Baltimore, MD Hazard Mitigation Plan*

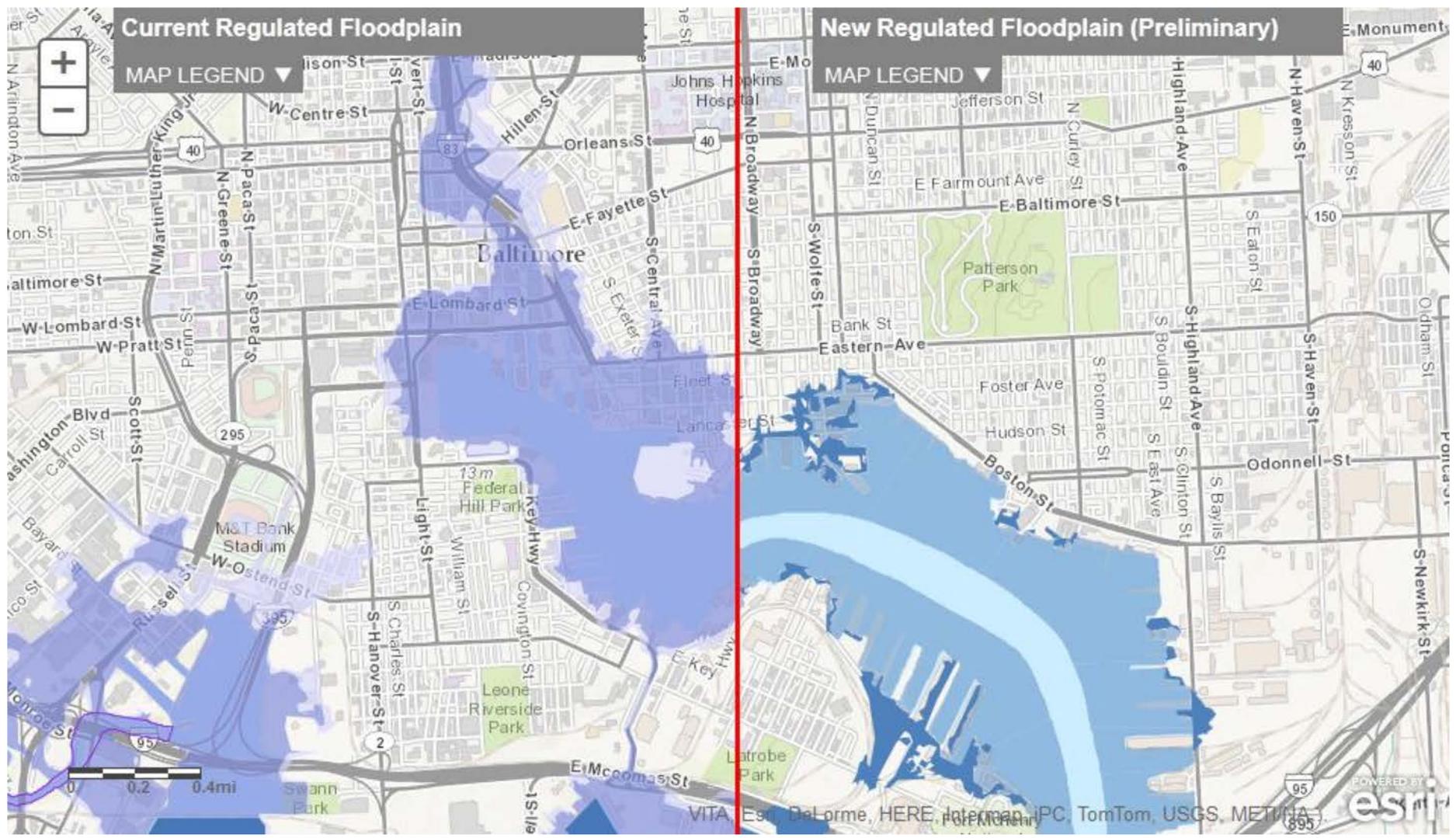


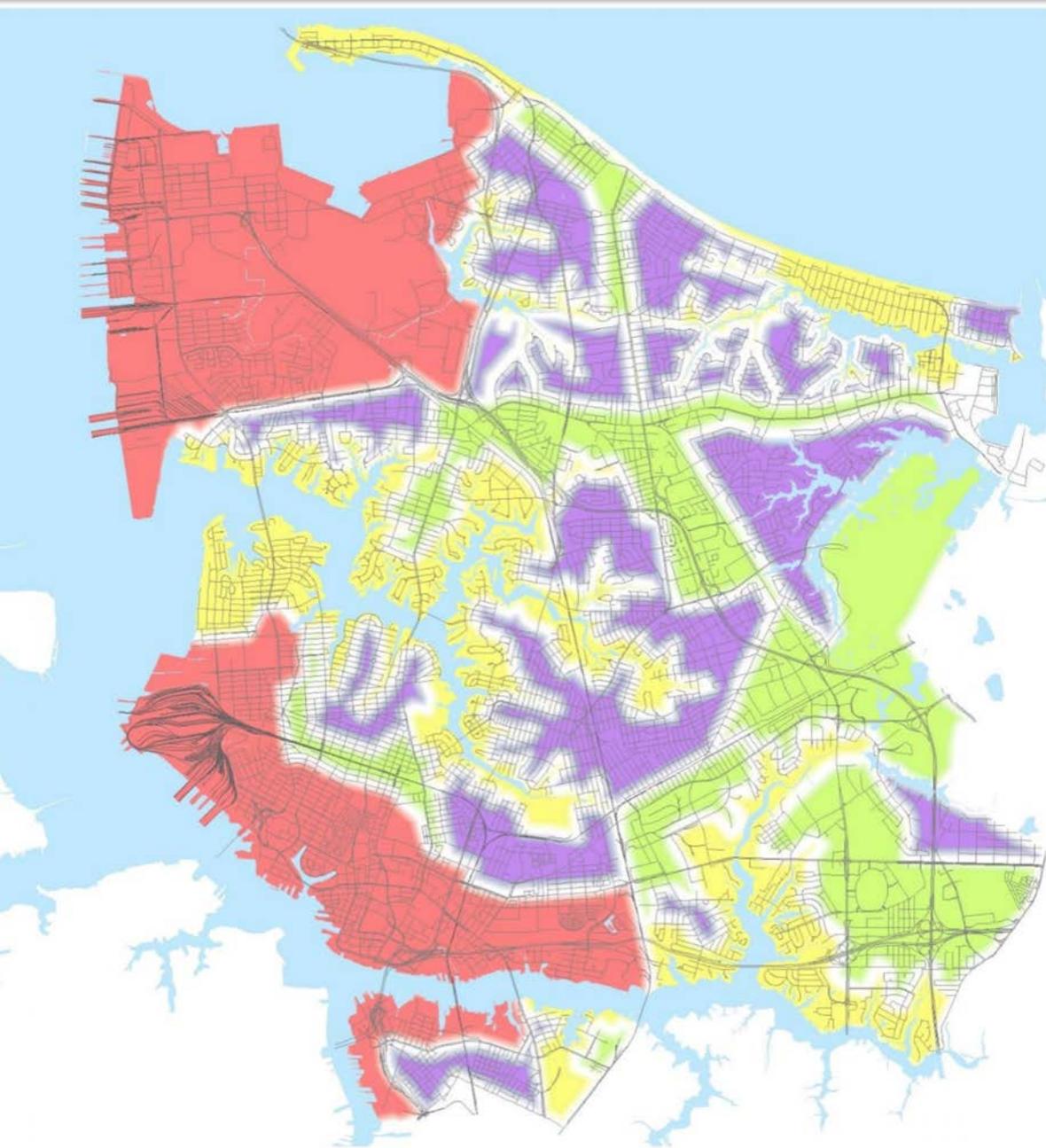
### IMPLEMENTATION GUIDELINES

Lead Agency	MOEM
Stakeholders	BCRP (Forestry), BGE, Building Owners, DGS, DOT, DPW, Exelon, PSC, Utility customers, Veolia, Wheelabrator
Alignment with Goals	Goals 2 and 3
Connection with Existing Efforts	 Building Standards and Zoning Codes; CAP; ESF-12; MDNR
Timeframe	

# FLOODPLAIN REGULATIONS:

## Baltimore, MD





- |   |  |
|---|--|
|  Red ("Economic Engines")    |  Green ("New Urban Centers")            |
|  Yellow ("Adaptation Areas") |  Purple ("Neighborhoods of the Future") |

# PLANNING:

*Norfolk, VA  
Vision 2100 Plan*

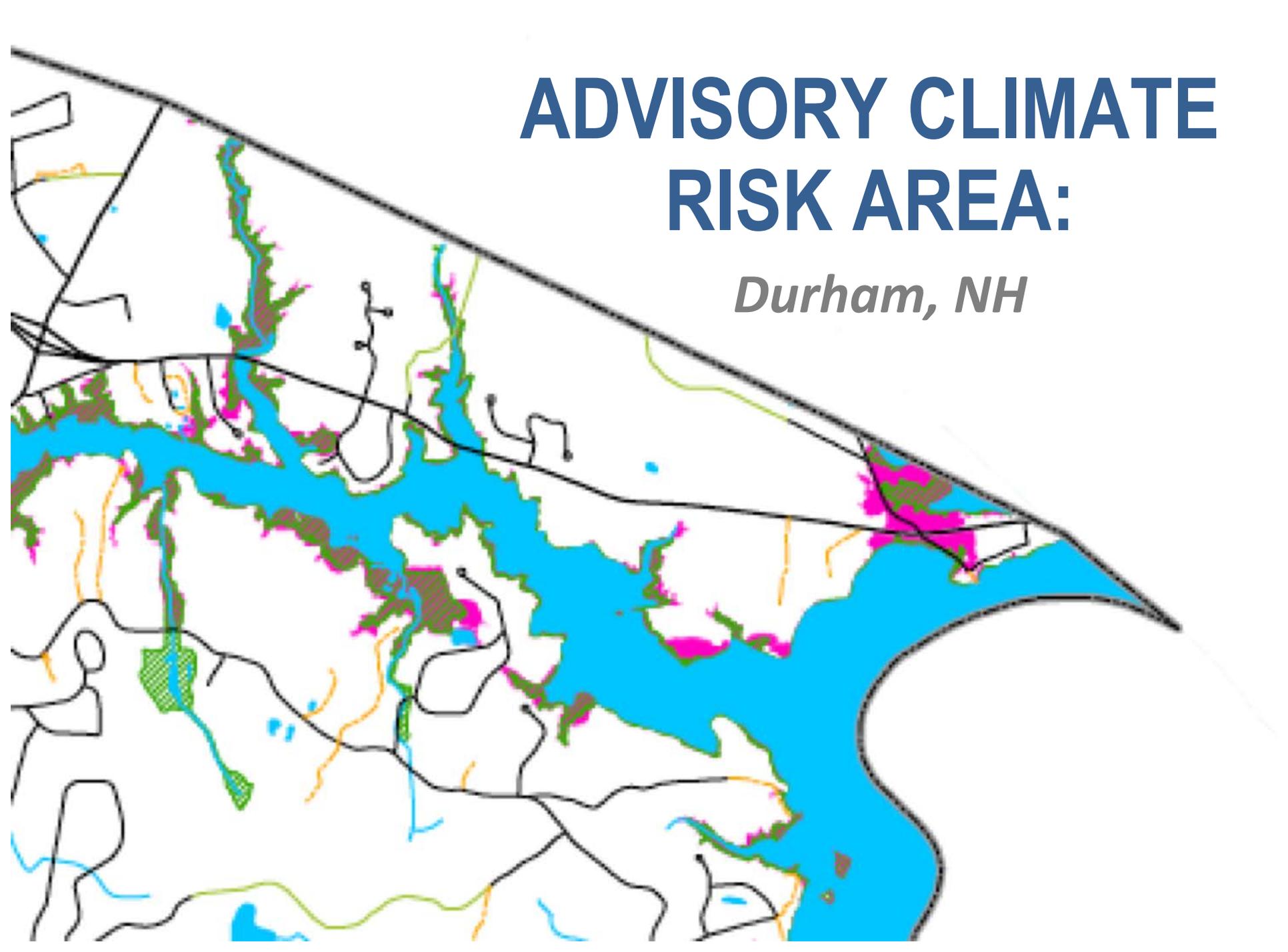
# RESILIENCE QUOTIENT SYSTEM:

*Norfolk, VA*



# ADVISORY CLIMATE RISK AREA:

*Durham, NH*



# ADAPTATION CHECKLIST:

*Spaulding Hospital, Boston, MA*

Critical equipment on roof

Elevated to 2085  
100-year floodplain

Operable windows







**LOCAL  
TAXATION:**  
*Measure AA  
San Francisco Bay*



# GREEN INFRASTRUCTURE:

*District of Columbia*



## Short-term Vision



# PLANNING:

## *Resilient Edgemere (New York City)*

## Long-term Vision



Credit: Resilient Edgemere Community Plan (p. 22)

# LOCAL BUYOUTS:

*Charlotte-Mecklenburg County, NC*



# SETBACKS:

*Kauai, HI*



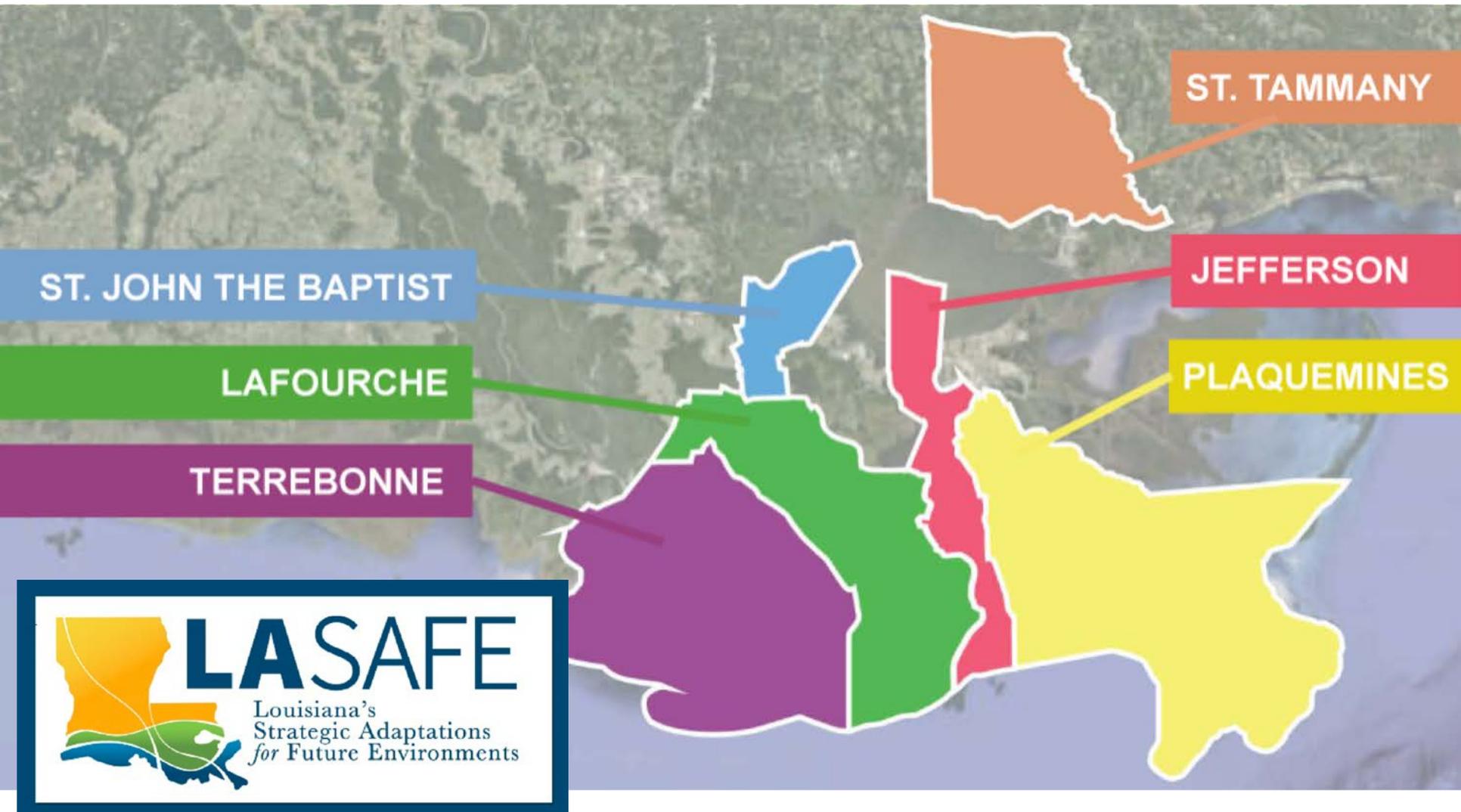
# ECOSYSTEMS:

## *Yankeetown, FL Natural Resource Adaptation Action Area*



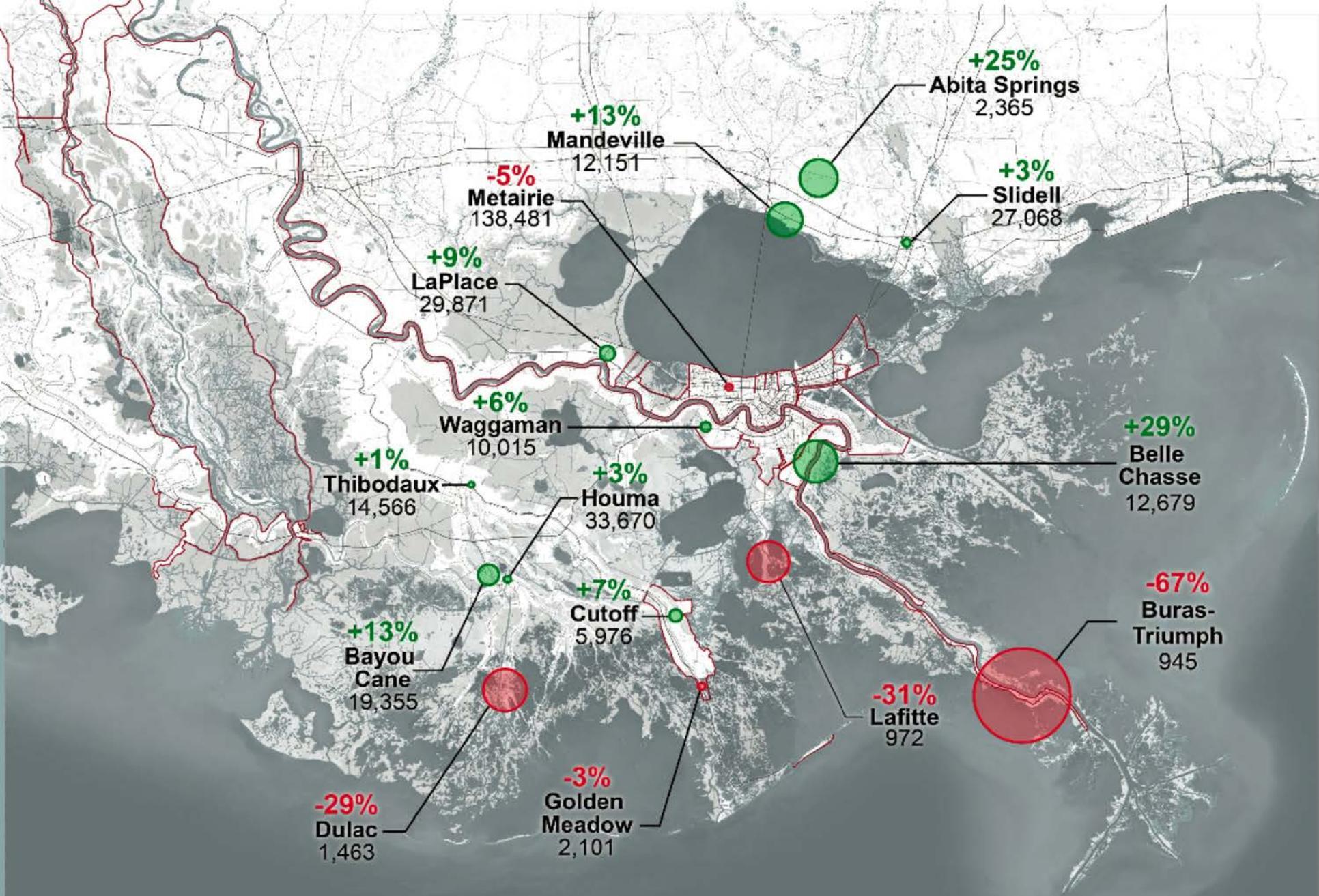
# RECEIVING COMMUNITIES:

*Louisiana*



**LASAFE**

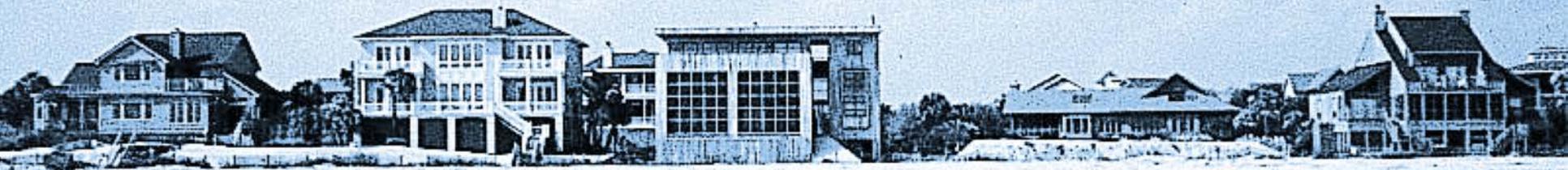
Louisiana's  
Strategic Adaptations  
for Future Environments



# LEGAL FEASIBILITY?

Question	Analysis
<b>Authority?</b>	<ul style="list-style-type: none"><li>• Local authority to zone and plan</li><li>• State agency roles</li></ul>
<b>Compliance with state laws?</b>	<ul style="list-style-type: none"><li>• Coastal act</li><li>• Floodplain requirements</li><li>• Wetlands regulations</li><li>• Historic preservation</li></ul>
<b>Compliance with federal laws?</b>	<ul style="list-style-type: none"><li>• National Flood Insurance Program</li><li>• Clean Water Act</li><li>• Americans with Disabilities Act</li></ul>
<b>Constitutional questions?</b>	<ul style="list-style-type: none"><li>• Takings</li><li>• Substantive due process</li></ul>

# *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*



Spencer Kennard  
[www.capecodphotos.com](http://www.capecodphotos.com)

# MAIN TAKEAWAYS

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

<http://bit.ly/ManagedRetreatToolkit>

# For More Information and Additional Resources:

Katie Spidalieri

[Katie.Spidalieri@georgetown.edu](mailto:Katie.Spidalieri@georgetown.edu)

202-662-4046

<http://www.GeorgetownClimate.org>

<http://www.AdaptationClearinghouse.org>

<http://bit.ly/ManagedRetreatToolkit>

GEORGETOWN CLIMATE CENTER

A Leading Resource for State and Federal Policy