

# Introduction to Adaptation Planning for Climate Change

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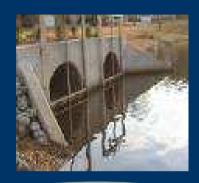
NOAA Coastal Services Center Linking People, Information, and Technology

#### **Climate Mitigation and Adaptation**



Climate Change **Mitigation** 

Reduce greenhouse gas emissions

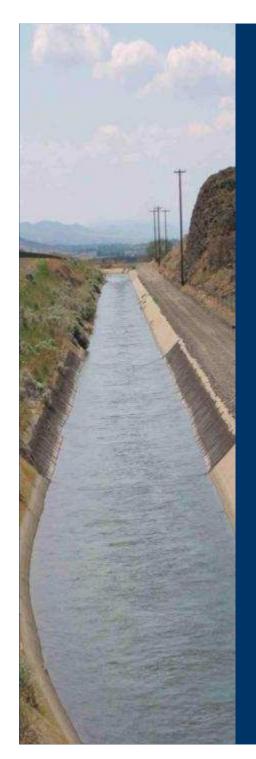


Climate Change Adaptation

Reduce vulnerability of natural and human systems

Maximize potential benefits





#### **Adaptive Planning**

Climate Resilient – organizations, communities, economies, and ecosystems

Avoid or minimize negative impacts

Capitalize on potential positive changes

Be able to 'bounce back' after an event



### History May Not be the Best Guide to the Future

- Past events should not be used as the only indicator of future events
- Anticipate more extremes
- We have already set these changes in motion





Adaptive Planning

### Prepare for changes in built, human, and natural systems

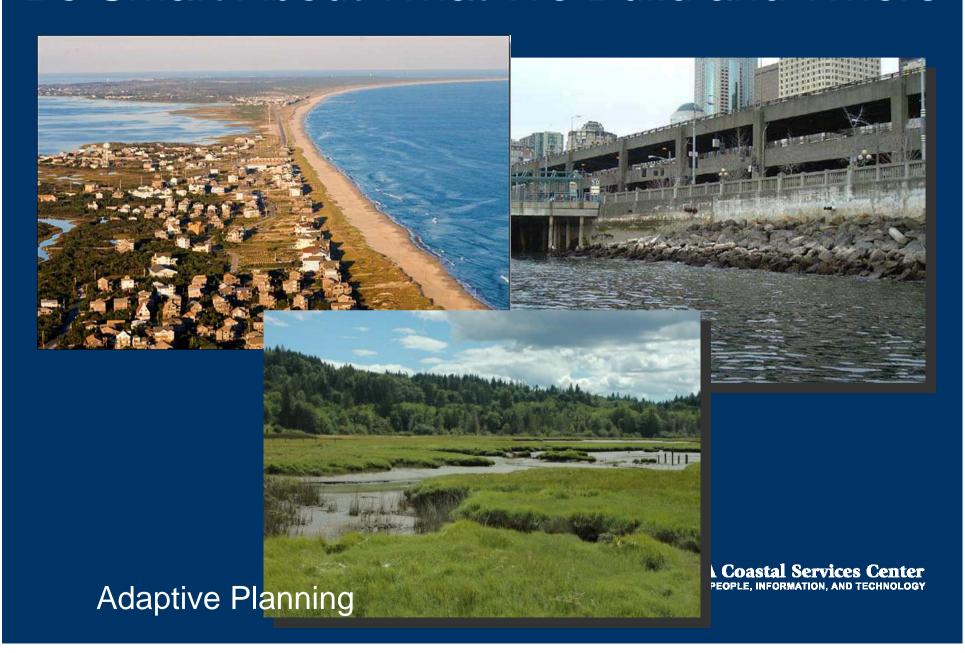
"Planning backward from 2050"

"Asking the Climate Question"





#### Be Smart About What We Build and Where



#### Getting Started

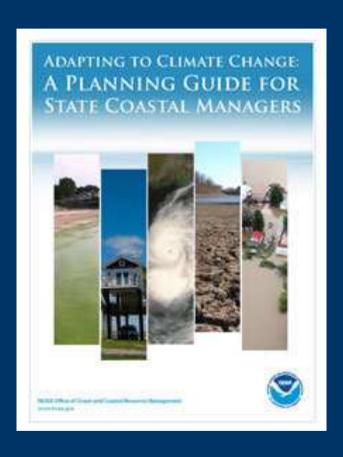
How can you enable better decisions and still move forward?

- Many impacts to consider
- Can get overwhelming
- Prioritize and start small
- It takes time!





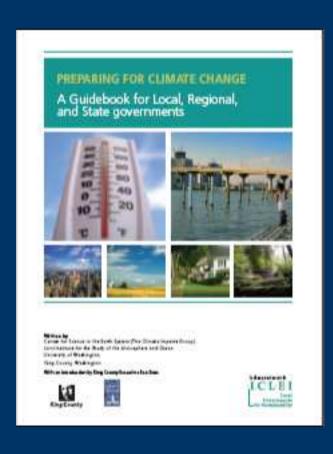
### Adapting to Climate Change: A Planning Guide for State Coastal Managers



- 1. Establish the Planning Process
- 2. Assess Vulnerability
- 3. Create an Adaptation Strategy
- 4. Design a Plan
  Implementation and
  Maintenance Process

Drawn from Adapting to Climate Change: A Planning Guide for State Coastal Managers, by the NOAA Office of Ocean and Coastal Resource Management – 2010

### Preparing for Climate Change: A Guidebook for Local, Regional & State Governments



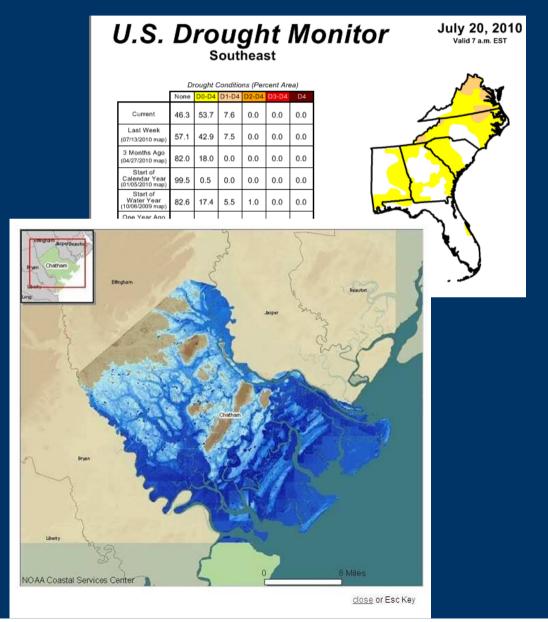
- 1. Listen to the Science
- 2. Build support and a Team
- 3. Assessment risk, vulnerability, adaptive capacity
- 4. Set goals and develop your plan
- 5. Implement your plan
- 6. Measure progress

Drawn from *Preparing for Climate Change: A Guidebook for Local, Regional and State Governments,* by the Climate Impacts Group and King County, and published by ICLEI – September 2007

#### The Science – Make it Local

 Will flooding happen more frequently in certain areas?

- Will sea level rise expand risk areas?
- What impacts will drought have on our water supply?



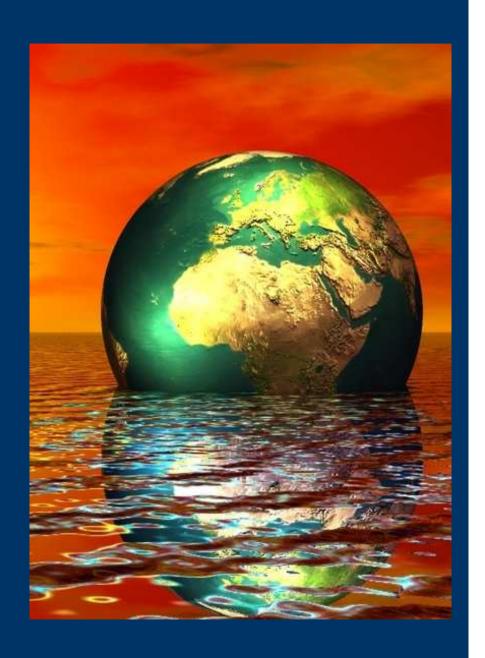
#### Build Support – and Build a Team

- Identify key staff and decision makers
- Interdepartmental
- Engage City Council
- Find a champion
- Engage regularly



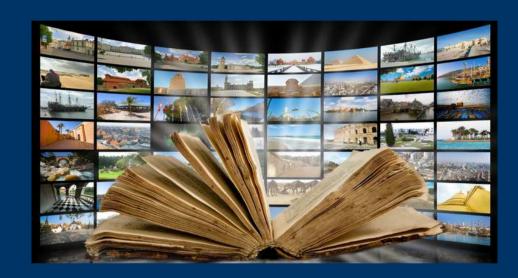
#### Assessment

- Explore local/regional climate changes and the impacts
- What system will be exposed to these impacts?
- Are there other existing stressors?
- What strengths does your community have?



#### Create Your Plan

- Review goals established for at risk planning areas/sectors
- Identify actions or strategies that capitalize on opportunities and reduce vulnerability
- Prioritize actions
- Draft adaptation plan (goals, actions, timeline, costs)



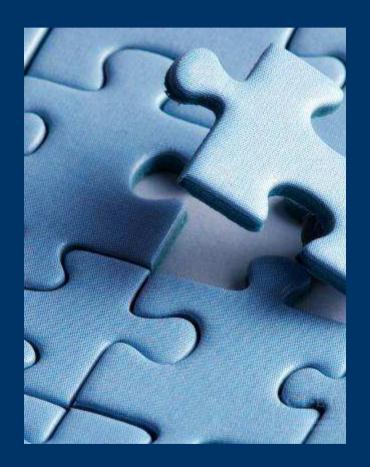


#### **Planning with Uncertainty**

"No regrets" strategies make sense even if climate change impacts are not as projected

"Low regrets" strategies provide climate change benefits for little additional cost or risk

"Win-win" or "Co-benefit" strategies reduce climate change impacts while providing other environmental, social, or economic benefits



The cost of inaction is greater!

#### Implement Your Plan

- Incorporate Climate Change into Existing Planning Activities (Comprehensive Plans, Wastewater Treatment, Transportation Infrastructure, Emergency Management)
- Implement new actions (create new policy, identify funding and other resources, create a timeline, celebrate success)



#### Take Home Messages



- Adaptation planning is a comprehensive process
- Easier to start if you can link to ongoing work and make it routine
- Use guides and resources

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