

Climate Adaptation at FEMA

National Advisory Council
Philadelphia
March 2014



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Executive Order - Preparing the United States for the Impacts of Climate Change

- I. Policy – The impacts of climate change are already being felt; the Federal government must build on recent progress and pursue new strategies to improve the Nation’s preparedness and resilience
- II. Modernize Programs to Support Climate Resilient Investment
 - Identify and seek to remove or reform barriers
- III. Manage Lands and Waters for Climate Preparedness and Resilience
- IV. Provide Information, Data, and Tools for Climate Change Preparedness and Resilience
- V. Require Federal Agency Planning for Climate Change Related Risks
- VI. Est. Council on Climate Preparedness and Resilience
- VII. Est. State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience



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DHS Climate Action Plan (CAP)

- Climate change represents a complex homeland security challenge with strategic implications for the Department
 - Climate change acts as a “threat multiplier”
 - Impacts in the Arctic
 - Extreme weather impacts
 - Impacts on migration patterns
 - Infrastructure impacts
 - Changing disease patterns
- DHS CAP 2014 transmitted to CEQ in March



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FEMA Climate Adaptation Efforts to Date

- Integrating Adaptation into Hurricane Sandy Recovery
 - Greater flexibility for smarter rebuilding (SRIA)
 - Non-regulatory risk information products (ABFEs and Sea Level Risk Planning Tool)
 - Updating Benefit-Cost methodologies
- Integration of Climate Change into FEMA Programs
 - Pre-disaster planning
 - Risk reduction (NFIP CRS revisions)
 - Recovery and mitigation (focus on future risks)
- Best Practices Information Sharing
 - International partners
 - Inter-agency and regional efforts
 - Local peer to peer sharing



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FEMA's Climate Adaptation Implementation Plan

1) Develop Actionable Risk Tools and Data

- Climate Adaptation Federal Level Exercise (Sept '17)
- Community Tabletop Exercises and Pilot Projects (June '14)
- Future Risk Mapping and Modeling (www.globalchange.gov/home)
- Preparedness/Risk Assessment Resource Guide
- Aligning 404 and 406 Mitigation Programs

2) Facilitating Climate-Resilient Investments

- Federal Flood Protection Standard
- Benefit-Cost Methodology (federal public assistance)
- Program Barriers and Opportunities Assessment
- Best Practices Guide
- National Cohesive Wildland Fire Management Strategy



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FEMA's Climate Adaptation Implementation Plan

3) Build Climate Adaptation Knowledge and Capacity

- Partnership Outreach and Development
- Climate Literacy Campaign
- Climate Adaptation Training and Capacity Building Resources



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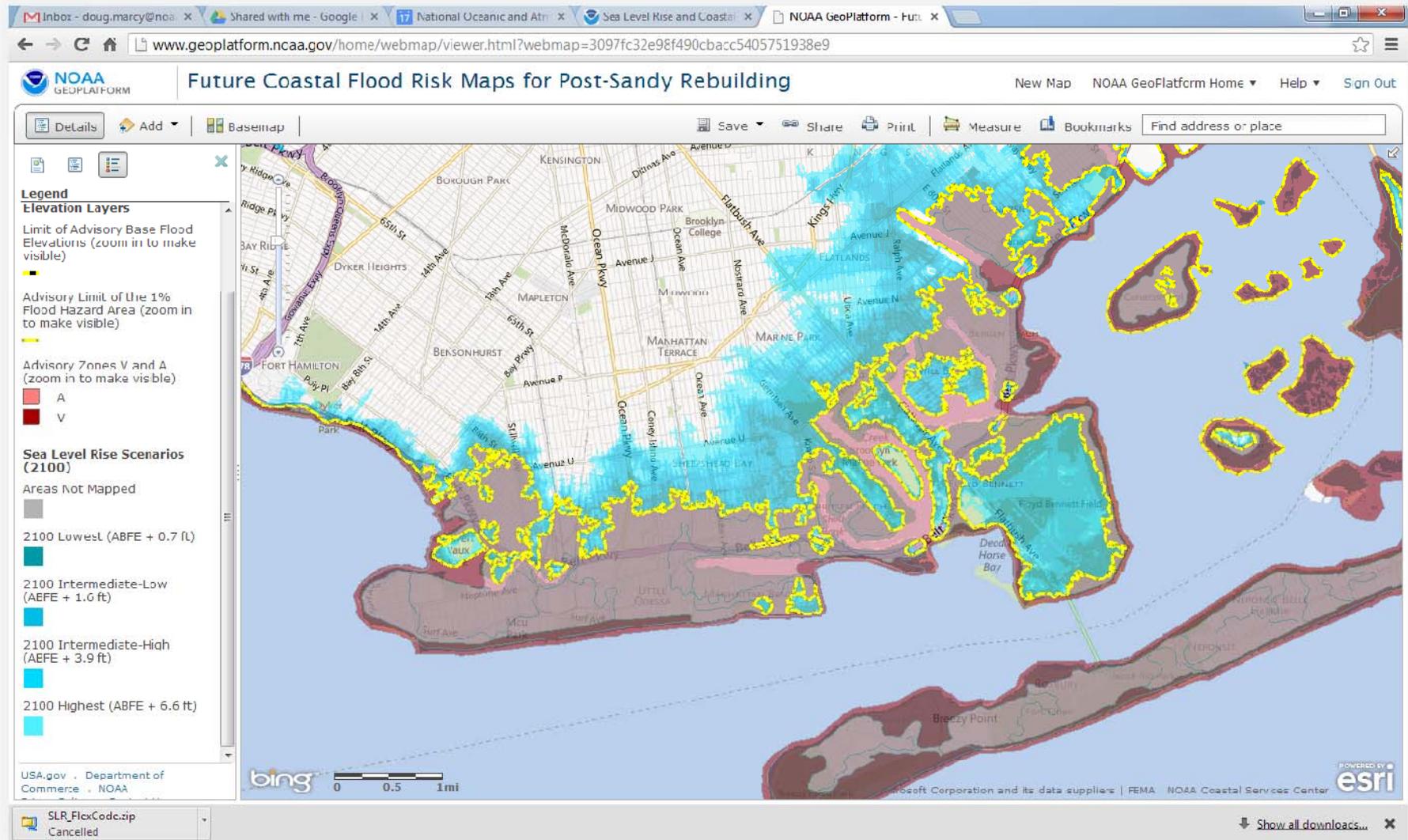
Illustrative Ex: Risk Assessment Tools

- The Threat and Hazard Identification and Risk Assessment (THIRA) process standardizes the risk analysis that emergency managers and homeland security professionals use every day throughout the normal course of their work.
- The THIRA process and tools help communities identify capability targets and resource requirements necessary to address anticipated and unanticipated risks.
- Tools include resources for incorporating climate change related risks such as sea level



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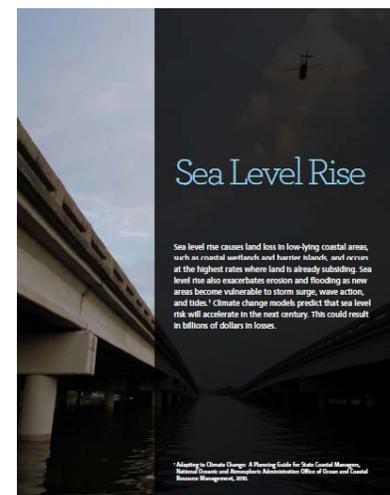
Illustrative Ex: Future Risk Mapping



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Illustrative Ex: Risk Reduction Planning Tools

- Mitigation Planning Resources Useful in Climate Adaptation Include:
 - **Local Hazard Mitigation Planning Handbook** offers practical approaches, tools, worksheets and local mitigation planning examples for how communities can engage in effective planning to reduce long-term risk from natural hazards and disasters.
 - **Integrating Hazard Mitigation Into Local Planning: Case Studies and Tools for Community Officials** provides practical guidance on how to incorporate risk reduction strategies into existing local plans, policies, codes, and programs that guide community development or redevelopment patterns.
 - **Mitigation Ideas** provides a comprehensive inventory of mitigation actions for communities to consider for the following natural hazards: Drought, Earthquake, Erosion, Extreme temperatures, Flood, Hail, Landslide, Lightning, Sea level rise, Severe wind, Severe winter weather, Storm surge, Subsidence, Tornado, Tsunami, and Wildfire.



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