DEVELOPMENT AND
FEASIBILITY OF A STATE LED
FLOOD AUDIT PROGRAM

Michelle F. Burnett, CFM, CEM
BACKGROUND

- 400+ miles of coastline
- 5 counties
- 39 municipalities and 1 Tribal nation
- 21 communities are coastal
- Approximately 500K household units (2015 Census)
- 14,500+ NFIP Policies
HISTORICAL FLOODING IN RHODE ISLAND

- 2 Federally Declared Disasters since 2010 related to flooding

- 2010 – Inland/ Riverine flooding
- 2012 – Superstorm Sandy
INCREASED COST OF FLOODING = DEMONSTRABLE NEED

<table>
<thead>
<tr>
<th>County</th>
<th>2010 &amp; 2012 Flood Claims (%)</th>
<th>All Other Flood Claims (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bristol County</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>Kent County</td>
<td>77%</td>
<td>33%</td>
</tr>
<tr>
<td>Newport County</td>
<td>54%</td>
<td>46%</td>
</tr>
<tr>
<td>Providence County</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Washington County</td>
<td>79%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Percentage of Total Claims Attributed to 2010 and 2012 flooding events

Amounts of Obligated Disaster Related Funding for 2010 and 2012 Flood Events
RI House passed H.R. H 8267 in May 2016 to:

“TO CREATE A TASK FORCE TO STUDY THE FEASIBILITY AND FISCAL RAMIFICATIONS, AND MAKE推薦Suggestions FOR IMPLEMENTING A FLOOD AUDIT PROGRAM.”

- Sponsored by Rep. Lauren Carson (D-Newport)
- Required the RI Executive Climate Change Coordinating Council (EC4) to examine the feasibility and fiscal ramifications of a Flood Audit Program
- Creation of a Flood Audit Taskforce
- Connection to existing Energy Audit Program
- Focuses on both residential and business structures
- Required final findings and recommendations be presented to the RI General Assembly by February 2017
WHAT IS A FLOOD AUDIT?

“A Flood Audit is defined as a phased assessment of a property (residential and commercial, including inventory and utilities) that is either owner occupied or leased where the owner/occupier desires to understand how best to minimize risks from flooding events.

It includes property (owned or leased/rented for residential or business purposes) in both coastal and riverine areas susceptible to impacts from flooding.”
FLOOD AUDIT TASKFORCE MEMBERSHIP

- Task Force Membership represented a wide spectrum of participants
  - Twenty two experts in:
    - Engineering
    - Floodplain management
    - Emergency preparedness
    - Environmental protection
    - Coastal resource management
    - Insurance
    - Business regulation
    - Economic development
    - Municipal government
    - Building regulation and development
    - Architecture
    - Public health
MEETING FOCUS AND PROCESS

- Task Force convened in September 2016 through January 2017
- Established ‘ground rules’ for open forum and collaborative thinking
- Meetings focused on program design:
  - Administration
  - Structure
  - Funding
  - Staff Qualifications
  - Outreach
  - Legality
  - Measuring Success
<table>
<thead>
<tr>
<th>Ownership</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Non-Governmental Entity</td>
<td>Hybrid</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>State administered program</td>
<td>Administered solely by a third-party, non-governmental entity</td>
<td>Administered by state and non-governmental entity</td>
</tr>
</tbody>
</table>

The Taskforce Recommends that the program be:

- Developed with the intent to reduce flood risk to property owners.
- Administered as a hybrid program utilizing subject matter expertise from a variety of state and non-governmental partners for the greatest flexibility and utility.
- Piloted in a few select communities to assess functionality prior to rolling the program out statewide.
# PROGRAM STRUCTURE

<table>
<thead>
<tr>
<th>Phase</th>
<th>Deliverable</th>
<th>Description</th>
<th>Personnel</th>
<th>Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Completion of web-based assessment</td>
<td>Current and future property risk assessment</td>
<td>1-2 FTEs</td>
<td>IT/GIS systems</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Completion of on-site assessment</td>
<td>Perform on-site property risk assessment</td>
<td>2-3 FTEs</td>
<td>Building Codes/ Federal regulations</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Finalized site-specific risk assessment</td>
<td>Provide property risk assessment report (including mitigation recommendations)</td>
<td>4-7 FTEs</td>
<td>Building codes/ Federal floodplain management regulations/ CFM/ hazard mitigation</td>
</tr>
</tbody>
</table>

- The Taskforce Recommends that the program be:
  - A phased deliverable approach
  - An online portal where customers can upload/download property specific data
  - An on-site assessment/information collection form
  - A customizable template for a post-assessment report
PHASED APPROACH FOR PROGRAM DELIVERY

- Property owner decision to participate in Flood Audit Program
- Web-Based Assessment
- On-Site Assessment
- Site Risk Assessment Report
- Mitigation Actions
## Program Funding

<table>
<thead>
<tr>
<th>Funding Mechanism</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct State Appropriation</td>
<td>State funded allocation for program administration</td>
<td>Insurance Assessment/Fee</td>
<td>Grants</td>
<td>Direct Fee for Service</td>
</tr>
<tr>
<td>Insurance Assessment/Fee</td>
<td>An automatic policy fee to a basic insurance policy</td>
<td>Funding provided by third-party entity</td>
<td>A fee for each direct service would be imposed on the customer</td>
<td></td>
</tr>
</tbody>
</table>

- The Taskforce Recommends that the program be:
  - Derived from a combination of funding sources (especially during the initiation phase when funding may not yet be secured and/or continuous)
  - Ensured to be consistent and sustainable
  - Utilized to support staff—from program inception through steady state operations
  - Leveraged against existing policies, projects, and initiatives to create cost-savings for property owners that implement mitigation measures
STAFF QUALIFICATIONS

- The Taskforce Recommends that the program be collectively knowledgeable in a variety of technical areas but not limited to:
  - Building codes
  - Zoning regulations
  - FEMA mitigation requirements and best practices
  - NFIP
  - Floodplain Management concepts
  - Information Technology
  - Program Administration/Project Management
  - Geographic Information Systems (GIS)
  - Inspectional Services
  - Public Outreach
- Able to communicate effectively with the public on flood risk reduction
- Knowledgeable and confident when responding to technical questions
The Task Force recommends program outreach be:

- Tailored to desired audiences for the largest benefit.
- Clear and concise.
- Adequately funded in the Program’s budget.
- Communicated through various channels including, but not limited to:
  - Insurance and Real Estate agents (and related member organizations)
  - Design and construction professional societies
  - Financial Institutions
  - Schools
  - Cities/Towns
  - Civic Organizations
  - Chambers of Commerce
  - Rhode Island Alliance for Business Resilience
  - Rhode Island Flood Mitigation Association
  - Rhode Island Association of Emergency Managers
  - Property managers
The Task Force recommends the following legal issues be addressed:

- Creation of a legal disclaimer which addresses the following:
  - The implementation of mitigation projects is not a guarantee that the property will never be impacted by flooding
  - The level of uncertainty in the data utilized for the program (e.g., sea level rise) because estimates are largely based on prediction models

- Privacy concerns

- Whether or not there may be a need for auditors to purchase professional liability insurance

- The need for legislative authority to add an assessment to property policies
The Task Force recommends following indicators be used to measure success...

- The number of flood audits performed
- The percentage of property owners that took action to mitigate risk
- The number of building permits requesting alteration or elevation of property as a result of an audit
- Usage metrics associated with the online portal
The Task Force recommends the following measures be taken to move this Program one step closer to implementation:

- Piloting the Flood Audit Program in multiple communities with varying demographics
- Establish a financial reserve for property owners in order to make mitigation projects more affordable
- Consider impacts to existing organizations (public and private)

LOOKING FORWARD:
REDUCING RISK AND ENSURING SUCCESS
Implementation of flood audit program and corresponding mitigation projects for property owners to reduce risk from flooding events is needed.

Overall, the members of the Task Force believe the Flood Audit Program is a viable solution to equip Rhode Islanders with the tools and information they need to actively protect their property and business assets against flooding.

The report is the ‘start of a conversation’ about how to develop a flood audit program in RI.
QUESTIONS???