Risk MAP Program

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Suzanne K. Vermeer, P.E., CFM
FEMA Region V – Chicago, IL
Agenda

- Risk MAP Vision and Alignment
- Program Goals and Measures
- Risk MAP Partners
- Multi-Year Strategy & Value Added by Risk MAP
- Project Component Details
- Risk MAP Products and Strategies
FEMA’s Mission Statement

Support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.
Risk MAP Lifecycle
Focus on Better Risk Communication

Risk MAP
REDUCE LOSS
OF LIFE & PROPERTY

1. Identify Risk
2. Assess Risk
3. Communicate Risk
4. Mitigate Risk
5. Plan for Risk

- Map Risk Data
- Assess Present & Future Risks
- Mitigate Risk
- Plan for Risk
- Communicate Risk
- Reduce Risk
- Transfer Risk

Goal – Measure Quantifiable Risk Reduction

Focus on Better Risk Communication
Risk MAP (Mapping, Assessment Planning)

Vision

Through collaboration with State, Local, and Tribal entities, Risk MAP will deliver quality data that increases public awareness and leads to action that reduces risk to life and property.
The main components of the Risk MAP Solution are the foundation for motivating action to reduce risk

<table>
<thead>
<tr>
<th>Multi-Year Plan</th>
<th>Risk MAP Program Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1: Data Gaps</strong>&lt;br&gt;Address gaps in flood hazard data</td>
<td><strong>Goal 5: Synergize Programs</strong>&lt;br&gt;Align Risk Analysis programs and develop synergies</td>
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<td><strong>Goal 2: Awareness &amp; Understanding</strong>&lt;br&gt;Measurably increase public’s awareness &amp; understanding</td>
<td><strong>Goal 4: Digital Platform</strong>&lt;br&gt;Provide an enhanced digital platform</td>
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<td><strong>Goal 3: Mitigation Planning</strong>&lt;br&gt;Lead effective engagement in Mitigation Planning</td>
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Risk MAP Solution

- Watershed
- Elevation Data Strategy
- Levels of Study
- Program Measures
- Risk Assessment
- Mitigation Planning
- Risk Communications
- National Outreach
# Program Goals and Measures

<table>
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<th>Risk MAP Goals</th>
<th>Risk MAP Measures</th>
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<tr>
<td><strong>Goal 1: Data Gaps</strong>&lt;br&gt;Address gaps in flood hazard data</td>
<td>• Ensure 80 percent of the Nation’s flood hazards are current by 2014— the flood hazard data are new, have been updated, or deemed still valid through Risk MAP review and update process</td>
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<td><strong>Goal 2: Awareness &amp; Understanding</strong>&lt;br&gt;Measurable increase of public awareness &amp; understanding</td>
<td>• Increase State, local, and Tribal officials’ level of understanding of flood risk</td>
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<td><strong>Goal 3: Mitigation Planning</strong>&lt;br&gt;Lead effective engagement in Mitigation Planning</td>
<td>• Ensure 80 percent of the U.S. population (excluding territories) is covered by a Local or Tribal hazard mitigation plan that is approved or approvable pending adoption</td>
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<td><strong>Goal 4: Digital Platform</strong>&lt;br&gt;Provide an enhanced digital platform</td>
<td>• Percent of Local hazard mitigation plans approved using quality Risk MAP data or better</td>
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<td><strong>Goal 5: Synergize Programs</strong>&lt;br&gt;Align Risk Analysis programs and develop synergies</td>
<td>• Establish a culture of continuous improvement and executing projects aimed at reducing process cycle time and improving the quality of Risk MAP products and services</td>
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Risk MAP Partners

- CDS – Customer Data Services
- PTS – Production Technical Services
- PM – Program Management
- CTP – Cooperating Technical Partners
## Value Added in Risk MAP

<table>
<thead>
<tr>
<th><strong>Annual Scheduling Approach</strong></th>
<th>Before (Map Mod)</th>
<th>2010 and Beyond</th>
</tr>
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<tbody>
<tr>
<td>Based on Risk</td>
<td></td>
<td>• <strong>Annualized loss study (Trifecta)</strong>&lt;br&gt;Risk x Need x Good Topo + Community contribution</td>
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| **Elevation Data Acquisition** | Best available data | • **Cost-sharing for new quality elevation data** |

| **Engineering & Mapping**     | County by county basis (detailed and approximate) | • **Watershed approach (greater variety catered to community needs)**<br>• Meet all coastal and levee commitments<br>• All Model-Based analysis |

| **Risk Assessment**           | Credibility of Risk Assessment data at local level unknown | • **Initiate risk baseline for nation**<br>• Create, manage and maintain assessment data |

| **Mitigation Planning**       | On a project by project basis | • **Provide many technical support options on a national level**<br>• Expand community interaction<br>• Provide project-level inputs including flood “root-cause” analysis, a “Risk MAP”, refined flood risk assessments |

| **Risk Communication**        | Centered on crucial risks | • **Enhance relationships with officials and other stakeholders about long-term mitigation before problems arise. Everyone is at flood risk** |
Map Mod: Foundation for Risk MAP
## Project View - Risk MAP Builds on Map Mod

<table>
<thead>
<tr>
<th>Program Planning &amp; Needs Assessment</th>
<th>Scoping</th>
<th>Data Acquisition</th>
<th>Engineering</th>
<th>Flood Mapping &amp; Risk Mapping</th>
<th>Preliminary DFIRM Production</th>
<th>Post-Preliminary DFIRM Production</th>
<th>Sustainability</th>
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</thead>
<tbody>
<tr>
<td>CNMS</td>
<td>Enhanced Stakeholder Group</td>
<td>Deliver Risk-based products</td>
<td>Risk Communication</td>
<td>Preliminary Maps available on the web</td>
<td>Risk Communication</td>
<td>Risk Communication</td>
<td></td>
</tr>
<tr>
<td>Risk/Need/Community Contribution algorithm</td>
<td>Providing initial national risk assessment</td>
<td>All studies are model-based</td>
<td>Risk map is delivered</td>
<td>Products customized for communities</td>
<td>Products customized for communities</td>
<td>Products customized for communities</td>
<td></td>
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<tr>
<td>Watershed Prioritization</td>
<td>Risk Communication Plan</td>
<td>Multiple Frequency Analysis</td>
<td>Refined Risk Assessment</td>
<td>Data for Mitigation Plan</td>
<td>Data for Mitigation Plan</td>
<td>Data for Mitigation Plan</td>
<td></td>
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<tr>
<td></td>
<td>Communities leading risk communication</td>
<td>Additional touch points with community</td>
<td>Root Cause Analysis</td>
<td>Updated FIS</td>
<td>Updated FIS</td>
<td>Updated FIS</td>
<td></td>
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<td></td>
<td>Changing message to risk awareness</td>
<td>Watershed-based studies</td>
<td>Root Cause Analysis</td>
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### Risk MAP Project

- **MHIP**
  - Pre-scoping
  - MNUSSS
  - Biennial Survey
- **WISE Scoping Tool**
- **Time and Costs Meetings**
- **Use of best available data**
- **Limited elevation data acquisition on community basis**

### Map Mod Project

- **GIS-based hazard identification project**
- **Flood Insurance Study (FIS)**
- **DFIRMS**
- **Final Meetings**
- **BFEs on the web**
- **MIP Database as hazard data repository**
Highlighted Products

- Flood map – DFIRM (same as in Map Mod)
- Watershed-based Risk Map – Web-based depiction of risk
  - May include: Depth Grids, Velocity Grids, etc.
- Average Annualized Loss Study – HAZUS Level 1
- Watershed-based Refined Risk Assessment – HAZUS Level 2
- Root Cause Analysis
  - What is or could cause the risk?
- National Outreach Campaign
  - Webinars, RSS Feeds, Partnerships, etc.
  - Tools for accessing data and information
- Provide quality hazard/assessment data to enable communities to determine benefit/cost
Strategies

- **Annual Scheduling Approach**
  - 2010 – Trifecta: Risk, Need, Existing Elevation Data
  - Beyond 2010 – Trifecta: Risk, Need, Community Contribution

- **Elevation Data Acquisition**
  - 2010 – Available data, Targeted Acquisition
  - Beyond 2010 – Based on risk and need, Partner for cost-sharing

- **Engineering & Mapping**
  - 2010 and Beyond – Not everyone gets a map, model-based, watershed engineering, panel mapping

- **Risk Assessment**
  - 2010 and Beyond – Level 1 and refined risk assessment at project level
  - Beyond 2010 – Mapping is not necessarily the driver for Risk Assessment

- **Mitigation Planning**
  - 2010 and Beyond - Providing data and technical assistance such as root cause analysis and risk assessment

- **Risk Communication**
  - 2010 and Beyond - Developing highly targeted messages at the program level that can be tailored at the project level.
  - 2010 and Beyond - Use data, tools, and incentives to develop compelling risk communications
Coordinated Needs Management Strategy

- Organizes, stores, and analyzes flood hazard mapping needs
- Establishes a geospatially enabled effective means for users to enter, monitor, and update their inventory of Needs
- Document where flood studies meet FEMA’s current standards
- Data-driven planning and flood map update investment process in a geospatial environment (geodatabase)
- Validation Checklist used as basis for CNMS entry