Are Risk MAP Products *Really* on Our Mind?

ASFPM 2015
Atlanta, GA

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Presentation Overview

1. What is Risk MAP/What are Risk Map Products?
2. Overview of Alabama Program
3. Best Practices
4. Financial Analysis of Risk MAP Products
5. Community Feedback
6. Recommendations
Vision of Risk MAP

FEMA’s Risk Mapping, Assessment, and Planning (MAP) Program

- Implement watershed-based studies that create a more accurate, holistic picture of risk

- Ensure 80% of the Nation’s flood hazards are current

- Maximize the number of communities that use Risk MAP data and products to develop, implement and/or update their hazard mitigation plans.

- Deliver quality flood data that increases public awareness and leads to action that reduces risk to life and property
Tailored to meet the needs and capabilities of each community

Strong emphasis on community engagement

Goal is to ensure a whole community approach to reducing flood risk and building more resilient and sustainable communities
Regulatory vs. Non-Regulatory

**Traditional Regulatory Products**

**DFIRM Database**

- Traditional products are regulatory and subject to statutory due-process requirements

**Non-Regulatory Products**

**Risk MAP products**

- Risk MAP products are non-regulatory and are not subject to statutory due-process requirements
1. Changes Since Last FIRM Data

- Polygon areas of change for 1% and 0.2% annual chance floodplains and floodways.

- Possible enhancements (data must be locally supplied):
  - Structures: the total estimated count of affected buildings within the area of change
  - Population: the total estimated affected population within the area of change

- FRR shows summaries of the increases, decreases, and net change of SFHAs and buildings and population affected
2. Flood Depth and Analysis Grids

- Raster (grid) of water depth
- Depth is calculated as the difference (in feet) between the water surface elevation and the ground
- Percent Annual Chance/Change of Flooding in 30 year period
- Produced for 10%, 4%, 2%, 1%, and 0.2% annual chance events
3. Flood Risk Assessment

- Flood Risk Assessment Products (where 10%, 4%, 2%, 1%, 0.2%, input for Average Annual Loss)

Area Risk: Very Low to Very High (by census block/building)
- Classification (Residential, Commercial, Other)
- Average Value (buildings/census block)
- Population
- Total Loss
- Building Loss
- Content Loss
Alabama Flood Mapping Status

**Completed and Ongoing Watersheds**

**Effective**
- Upper Alabama
- Houston

**Preliminary**
- Middle Coosa
- Upper Choctawhatchee

**Ongoing**
- Wheeler Lake
- Locust Fork
- Cahaba
- Upper Black Warrior
- Guntersville Lake
- Coastal (Multiple Watersheds)
Are Risk MAP Products *Really* on Our Mind?

**Our Questions:**

- Are communities utilizing the information we are providing them?
- How are they using them?
- What are the cost impacts of these new products?
- To determine what are our best practices and what improvements need to be made moving forward
Best Practices: Resilience Meetings

- Best Practice: To have Resilience Meetings
- Best Practice: To have them around the time of the LFD
- Best Practice: To make the meetings about actions, tools to create actions.
- Best Practice: To train part of the audience before the meeting.

To tell the story behind the story of the floodplain maps.
Best Practices: Risk MAP Tools Training

Timing: BEFORE Resilience Meeting

Topics Covered:
- Risk MAP Database vs. DFIRM Database
- CSLF
- Flood Depth and Analysis Grids
- Flood Risk Assessment
- Areas of Mitigation Interest

Added Value:
- Viewing & manipulating data
- Hands on Training/Instruction
- Queries
- Using CSLF
- Mitigation Areas
Best Practices: Community Feedback

- ‘Data Use Survey’ forms sent to Federal, State & Local stakeholders
- Inquired about use of products
- Products received mixed reviews

Database Use Breakdown

- CSLF
- Flood Depth and Analysis
- Flood Risk Assessment
- AOMI
Feedback: Autauga County

Uses

- Mapping & Appraisal uses CSLF to help property owners
- Coordinated with EMA to assess possible flood hazard risks using Depth Grids
- County EMA used data to identify potentially overtopped roads
- Use of inundation maps for emergency evacuation purposes
Feedback: City of Prattville

Uses

- Changes Since Last FIRM was uploaded to community’s website for citizens to view
- Depth & Analysis Grids are used regularly to communicate flood risk
- Utilized Flood Risk Assessment to update HMP for CRS credits
- Ease of development of HMP
Feedback: Houston County

Uses

• Mapping & Appraisal uses the Non-Regulatory data to help determine appraisals
• CSLF assist with outreach to homes added to SFHA
• AoMI assist with mitigation projects to aid residents
• Targeted areas for improvement
• Federal opportunities for funding
• Drainage Improvement
Feedback: SEARPDC

**Uses**

- Flood Depth Grids utilized to determine potential planning development issues (access roads, etc.)
- Helped identify mitigation priorities
- Emergency Action Planning
- Increase Developer Awareness
Feedback: CARPDC

Uses

• Used databases to assist with Grant Projects, Comprehensive Plans, and Hazard Mitigation Plans
• Help categorize potential projects
• SFHA identified non-compliance area so project was put on hold
• Use maps to help coordinate planning efforts better
• Help identify other opportunities for grants
• Fact check areas for grant compliance
I DON'T ALWAYS GET FEMA FUNDS....

BUT WHEN I DO, IT BETTER BE SPENT ON MODELS AND NOT THOSE SILLY RISK MAP PRODUCTS.
Financial Comparison

- **FY10 Upper Alabama:**
  - Project Total: $2,000,000
  - PPP: $115,000
  - Non-Reg Total: $160,000
    - 5% of project budget

- **FY11 Middle Coosa:**
  - Project Total: $2,900,000
  - PPP: $200,000
  - Non-Reg Total: $210,000
    - 6.3% of project budget

- **FY12 Wheeler Lake:**
  - Project Total: $1,500,000
  - PPP: $195,000
  - Non-Reg Total: $140,000
    - 7.6% of project budget

- **FY14 Locust Fork:**
  - Project Total: $1,100,000
  - PPP: $180,000
  - Non-Reg Total: $90,000
    - 8.3% of project budget
Feedback vs. Program Goals

- Implement watershed-based studies that create a more accurate, holistic picture of risk
- Ensure 80% of the Nation’s flood hazards are current
- Maximize the number of communities that use Risk MAP data and products to develop, implement and/or update their hazard mitigation plans.
- Deliver quality flood data that increases public awareness and leads to action that reduces risk to life and property
Conclusions

- These products ARE being used.
- Not EVERYONE is taking full advantage of these products.
- Hands on Training has been very well received and has shown to increase the use of these products.
- Resilience Meetings lay the groundwork for the use of these products.
- More ‘bang for your buck’ with higher budgeted projects.
- The City of Huntsville does not like Risk Map products.

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