

# Preparing Your Floodplain Administration & Building Department for a Disaster

2017 ASFPM Conference – Kansas City, MO

Manuel Perotin, PE, CFM

May 3, 2017





WATER + ENVIRONMENT + TRANSPORTATION + ENERGY + FACILITIES

# Agenda

- Planning and preparing for disasters
- Training
- Inspections
- Staffing
- Building code, insurance, and other programmatic requirements
- Leveraging data collection for multiple purposes
- Permitting
- Lessons learned
- Resources available

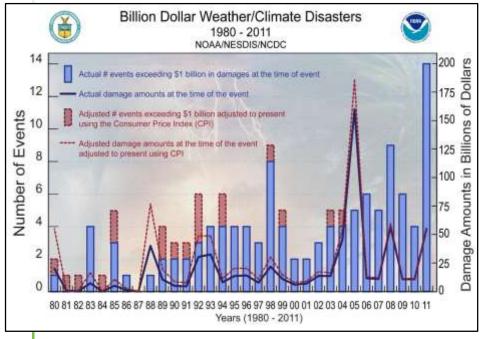
Disclaimer - Opinions expressed are solely my own and do not express the views or opinions of my employer or clients

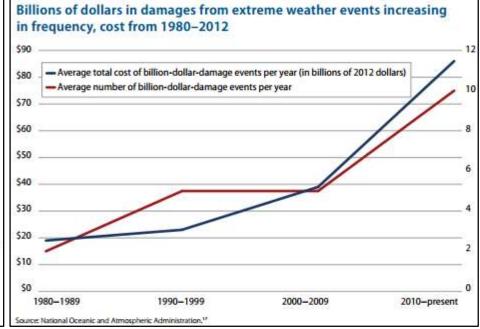
# Planning and preparing for disasters

- Statistics
- Plans
- Training and Exercises
- Daily Operations

"Plans are of little importance, but planning is essential."

- Winston Churchill





## **Training**

- ATC 20 & 45
- ICC When Disaster Strikes A Field Guide
- FEMA
  - Substantial Damage Estimator
  - IS-284: Using the Substantial Damage Estimator 2.0 Tool
  - E0285: Providing Post-Disaster
     Substantial Damage Technical
     Assistance to Communities
- Recommendations
  - Standard Operating Procedures
    - Safety
    - Signage/Reporting
  - Case Studies
  - Unique circumstances





# Inspections

- Safety
- Protocols
- Equipment
- Identification
- Consistency







# Staffing

- Source
- Span of Control
- Team Size
- Qualifications
- Familiar with Common/Unique Construction Practices
- Non-field Staff
  - Coordination & Planning
  - Logistics
  - Review
- Other
  - Law Enforcement Escort
  - Translator
  - Personally impacted

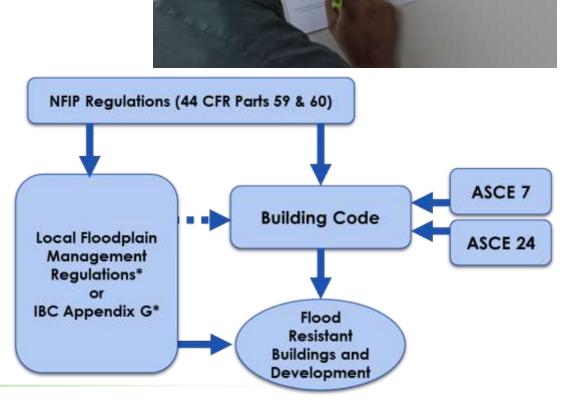




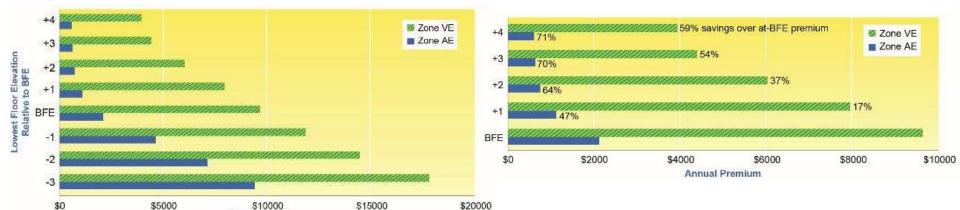
Building code, insurance, and other programmatic requirements

 Enforcement - emphasis every day, do not make enforcement new after a disaster

- Record Keeping
- Structure Inventory
- Maps
- Data
  - Elevation Certificate
  - Cumulative SI/SD
- Fact Sheets/Job Aids



# Building code, insurance, and other programmatic requirements



Note: Annual premiums calculated using the NFIP Flood Insurance Manual, April 1, 2017, for a one-story single-family home with no basement and no enclosure. Premiums (including fees) are based on the maximum available building coverage of \$250,000 and contents coverage of \$100,000, with \$2,000 deductibles for both building and contents coverages. Zone V building is assumed to be free of obstructions with a building replacement cost ratio of 0.75 or more.

#### With or Without Obstruction

Annual Premium



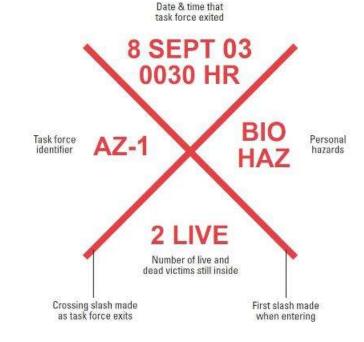
- No enclosure or open-wood latticework or insect screening
- With machinery or equipment at or above the BFE



- Enclosure (total area <300 sq. ft.) w/ breakaway walls
- With machinery or equipment at or above the BFE

# Leveraging data collection for multiple purposes

- First Responders
- Building Department
- Insurance Company
- Individual Assistance
- High Water Mark/Modeling
- Aerial Imagery (CAP, Drones, etc.)
- Social Media
- Substantial Damage
- Repair Contractors
- Research











### **Permitting**

- Spike/surge
- Consistent with day to day procedures
  - Emergency waivers
  - New requirements based on post disaster observations/ best available data
- Prepared for "Plan B"



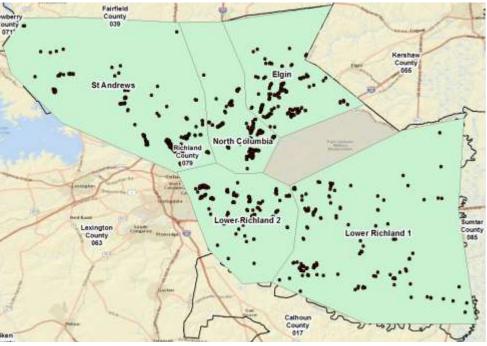


#### **Lessons Learned**

- Guidelines for Inspectors
  - Rules of Thumb by Depth
  - Indicators/Criteria
  - Ongoing repairs without a permit
- Local representative
- Priorities/Quadrants
- Representative Structure
- Incremental Staffing
- Volunteers







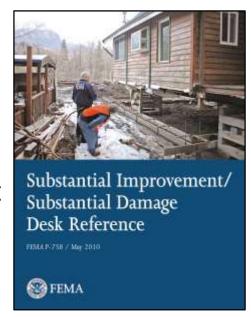
#### Resources Available

- Applied Technology Council
  - Assessment Form, Checklist, & Placards
- FEMA P-758 SI/SD Desk Reference
- Public Assistance Category B
  - Safety Inspections To establish whether a building is safe for entry, occupancy, and lawful use, as well as posting appropriate placards.
  - NOT Inspections
    - Substantial Damage under the FPM ordinance
    - Determine whether the building needs to be elevated or relocated
    - Ensuring repairs are IAW codes and standards
- HMGP Post Disaster Building Code Enforcement
- Mutual Aid



Field manual: safety evaluation of buildings after windstorms and floods





### Questions

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