Riverine Erosion Hazards: An ASFPM Discussion Paper

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Overview:
- Background
- Why Should We Care About Riverine Erosion?
- Riverine Erosion Hazard Costs
- NFIP Requirements
- State & Local Programs
- ASFPM Discussion Paper
Riverine Erosion

• Why Should We Care About Riverine Erosion?
  • Erosion vs. Flood Inundation
  • Erosion in the Arid West
  • FEMA Mandates
  • Evolving State of the Practice
Riverine Erosion

• Erosion vs. Flood Inundation

  • Floods: House gets wet
  • Erosion: House gets wet, then is gone
    Land under the house is gone
    Occurs outside the floodplain
    Occurs during < 100-year event
Riverine Erosion in the Arid West

- Tucson, Arizona ($100 M)
- Beaver Dam, Arizona
- Wickenberg, Arizona
- Phoenix, Arizona
- Colorado River Communities
- St. George, Utah ($200 M)
- Salt Lake City, Utah
- Colorado Front Range

“Over half of the annual $450 million in erosion damages occur in the western USA”

FEMA, 1999
Riverine Erosion

• NFIP Regulations ("Shall")
  • 44 CFR Part 60.5
    • Manage erosion prone areas
    • Permits for building in erosion areas
  • 44 CFR Part 60.24
    • Planning for erosion required
• State Regulations (AZ, WA, VT, MT)
• Local Community Regulations
• Methodologies Available
  • Mapping, Prediction
Current Status

• Evolving Standard of Practice
• ASFPM White Paper
  • Local Community Focus
  • Locally Appropriate Methods
  • Provide Resource Documents
  • Encourage Erosion Mapping
  • Prod FEMA to Action
• Many States Participating
  • ASFPM Arid Regions Represented
Riverine Erosion

• Recommended Actions
  • Map Erosion Hazard Areas
  • Apply Development Setbacks
  • Revise State Enabling Legislation
  • Fund Continued Research
    • Methodologies
    • Case Histories
ASFPM Riverine Erosion Hazards Discussion Paper

- Background
- History
- Working Group
- Current Status
- Future
Conclusions

• Think Beyond the SFHA
  • Beyond the 1% Flood
• Multi-Hazard Planning
  • Integrated
• Plan Across Regulatory Jurisdictions
• Map More
• Fund Good Science
Questions?