Introduction

Accurate information about risks is the first step in preventing and reducing losses.

Today, many of the Nation’s flood maps reflect outdated data, severely limiting their usefulness.

FEMA Map Modernization

- Nationwide
- $1 Billion Budget
- 5-Year Plan began in 2004
MapMod: Paper to Digital Maps

Why Modernize?

- Up-to-date maps support a flood insurance program that is...
- More closely aligned with actual risk
- Encourage wise community-based floodplain management
- Improve citizens’ flood hazard awareness
- More timely updates of flood maps
- Easier access to the flood hazard data used to create the maps.
- Map Modernization is a cornerstone for helping community officials and citizens be better prepared for flood-related disasters.

FEMA Map Modernization

Current Way of Doing Business...
Map Modernization
Current Style Digital DFIRM Product

Flood Map Modernization Vision
- Network the nation using the MIP
- Leverage the use of Federal, State, & Local Resources
- Reduce processing time and costs for map updates
- Increase partners’, stakeholders’, and users’ understanding of flood hazards and risks

Texas’ Map Mod Counties
Map Modernization in Texas

<table>
<thead>
<tr>
<th></th>
<th>Original</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Counties Mapped</td>
<td>254</td>
<td>135</td>
</tr>
<tr>
<td>Population in Mapped Counties</td>
<td>20,851,820</td>
<td>19,959,906</td>
</tr>
<tr>
<td>Area of Counties Mapped (sq mi)</td>
<td>264,708</td>
<td>128,514</td>
</tr>
</tbody>
</table>

Map Mod Roles – FEMA & Contractors

- **FEMA Headquarters**
  - Set National Policy
  - Budget Requests
  - LOMR Approval Signature
  - Congressional Liaison
- **FEMA Region VI**
  - Administrate Policy
  - Manage IDIQ Contract Task Orders
  - Manage RMC Task Order
  - Outreach Public Awareness

Map Mod Roles – FEMA & Contractors

- National Service Provider - NSP
- Support FEMA Headquarters
- Procedure Memos
- G&S
- Mapping Information Platform (MIP)
- LOMR Processing
- Library Data Storage
- Regional Management Center - RMC
  - Support Region VI
  - Issue Resolution (Engineering/GIS/Mapping)
  - Receipt of Study Data
  - Quality Assurance Audit
  - Coordinate Project Management
  - Post Preliminary Processing
  - MIP Training and Data Entry
  - Outreach and Public Awareness
Study Contractor Task Orders

- Scoping Task Order
  - Scoping Meeting
    - Base Map Ortho vs. Vector
    - Proposed Panel Scheme
  - Scoping Meeting Report
  - GIS Shape File Showing DFRM Mapping Needs for the County
- DFRM and Flood Insurance Study Task Order
  - Digital Flood Insurance Rate Map
  - Update Flood Insurance Study Text
  - Address mapping needs up to limit of budget
  - Update Community on study negotiated scope
  - Update Community on progress of study

Purpose of the Re-Studies

- Update Flood Insurance Rate Maps (FIRMS) and Flood Data
- Produce GIS-based Digital FIRMs
- Provide Guidance For
  - Development in Flood Prone Areas
  - Emergency Response
  - Planning and Design throughout the County

Map Mod Study Process

Flood Mapping Project Phases

- Community Coordination & Mapping Needs Assessment
- Project Scoping (2 phases)
- Topographic Data Acquisition
- DFRM Production
- Preliminary DFRM
- Post-Preliminary Processing

Timeframes given are approximate and will vary from study to study
Post-Preliminary Phase

- Communities receive DFIRMs and FIS Report
- CCO Meeting
- Notice of 90 day appeals period
- Two weeks later – Second notification stating the 90 day appeal period begun
- After appeals, a six month compliance period commences

Post-Preliminary Phase (cont.)

- During the 6 month compliance period, communities must adopt a new floodplain ordinance that recognizes the new maps
- If a community has not passed the ordinance within the 6 month compliance period, the community will be suspended from the program.
- Maps become effective at the end of the 6 month compliance period.

The Study Process

- Information Search
- Base Map and Terrain Data Acquisition
- Field Survey
- Hydrology
- Hydraulics
- Mapping
- Reporting (TSDN)
- Coordination /Outreach
Base Mapping

- Local Provided Planimetrics
- USDA National Agricultural Imagery Program (NAIP)
- USGS Contours Supplemented with Local Data

Terrain Information

- Terrain Map Sources
  - Local Data – Effective FIRM’s
  - USGS Contour Maps & 30 M DEMs

Possible Mapping Products Available

- New Detailed Study
- Enhanced Approximate Study
- Redelineation of Existing Detailed Study
- Approximate Study (Zone A Refinement)
- Digital Conversion
Redelineation Streams

- Applies to Existing Detailed Study Streams (Zone AE)
- Vertical Datum Update from 1929 to 1988
- Flood Boundaries Mapped to the Best Available Topography

Zone AE Redelineation
Approximate Study

- Zone A Refinement
- Automated H&H Procedures
- Boundaries Mapped to Best
  Analyze Topography

Sample of Existing Zone A

Zone A Refinement
DFIRM – Vector vs. Ortho Based

FIS Report

- Countywide Flood Insurance Study
  - Text
  - Profiles
  - Data Tables

For More Information…

www.fema.gov