



COEP Floodplain Activities Update

IBWC-Rio Grande Citizen's Forum



R. Alan Shubert, P.E., C.F.M.
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Background

- June 18, 2010-Preliminary Flood Insurance Rate Maps (FIRMs) and Flood Insurance Study (FIS) released for El Paso Community
 - Stemmed from national effort to modernize maps
 - Proposed changes from current/effective maps:
 - Approx. 9,000 properties removed from floodplain
 - Approx. 5,300 properties mapped into the floodplain
 - Upper Valley Area largest impact

Parcels in Floodplain by Area

	Total	LV	NE	East	Central	UV	West
Current	33,233	9,342	8,334	3,780	2,493	3,516	5,768
2010 Preliminary	24,484	4,620	6,007	1,230	2,204	8,815	1,608
Difference	-8,749	-4,722	-2,327	-2,550	-289	+5299	-4160



Mapping Process

- Nationwide Map Modernization initiative undertaken by FEMA in 2005 / 2006
- Used standard approximate mapping methods
 - Existing maps digitized and refined
 - Integrated GIS mapping, new contours & orthophotography
 - FEMA team looked at existing floodplains and used new mapping information
 - “Without Levee” modeling method implemented
 - Limited Base Flood Elevations created
- Resulted in removing several properties unnecessarily in the floodplain
- Added some property into the flood plain
 - Primarily due to “without levee” analysis



“Without Levee” Modeling Method

- On August 22, 2005, FEMA issued Procedure Memorandum 34
 - Defined rationale/work flow by which levees are considered for floodplain mapping purposes
 - If levee can't be accredited, floodplain studied & mapped as if the levee does not exist
 - “Accredited” means sealed by a Registered Professional Engineer as structurally stable with appropriate drainage and freeboard
- While not as precise as more detailed methods, rationale technically sound
 - If levee can not be accredited, difficult for an engineer to say that it will provide reliable protection without more detailed information



Preliminary Maps Placed on Hold

- May 24, 2011-FEMA officially places preliminary flood insurance rate map project for El Paso County on hold
 - Temporary hold necessary to revisit modeling approach used to analyze communities impacted by levees that are not accredited, “Without levee analysis”
 - Maps issued to El Paso community on June 18, 2010 impacted by this modeling approach
 - Proposed maps will NOT be finalized until this approach is completed by FEMA
 - Timeframe not specified



Process

- Develop a series of procedures for typical non-accredited levee scenarios
 - Working with community officials and stakeholders
- Assembled project team to explore options and assess key criteria
 - Comprised of U.S. Army Corps of Engineers and subject matter experts from academic and engineering communities
- Testing of selected methods
 - Case studies to simulate circumstances communities might face
 - Independent Scientific Body (IBS) also reviewed methods



Proposed Approach

- FEMA will overlay a Special Flood Hazard Area (SFHA), as appropriate, using one or more of the following procedures:
 - Sound Reach
 - Freeboard Deficient
 - Overtopping
 - Structural-based Inundation
 - Natural Valley
- Can be applied to entire system or can be divided into multiple reaches
 - Different approaches can applied to different reaches
- Will result in final SFHA on landward side of levee system



Mapping Procedures

All engineering data required for each procedure must be signed and stamped by a Registered Professional Engineer

- Sound Reach Procedure
 - Continuous section of levee system designed, constructed and maintained to withstand/reduce flood hazards by 1-percent-annual chance flood
- Freeboard Deficient Procedure
 - Communities/levee owners must demonstrate a minimum freeboard exists
 - Established given the many unpredictable realities of flood hazards



Mapping Procedures

- Overtopping Procedure
 - Can apply when the 1-percent-annual-chance flood level is higher than the top of the levee
- Structural-based Inundation Procedure
 - Levees with structural issues may provide some flood risk management benefits by impeding conveyance
- Natural Valley Procedure
 - May be used when a levee system would not obstruct the river from flowing within the entire natural valley of the floodplain during 1-percent-annual-chance flood



Community Involvement

- FEMA has made proposed approach available for public review and comment through the *Federal Register*
- Public Review Period from December 15, 2011-January 30, 2012
- Public Review Document available online:
 - *Analysis and Mapping Procedures for Non-Accredited Levees*
- Information posted on dedicated webpage:

www.fema.gov/plan/prevent/fhm/lv_lamp.shtm



Current Status

- FEMA officials continue to develop the set of standards
 - Evaluating partial acceptance of levees that can't be certified
 - Reconciling map information with digital format
 - Refining proposed analysis and mapping approach based on comments received
- *FEMA cannot determine whether a community's Special Flood Hazard Area (SFHA) will increase or decrease until it collaborates with the community and conducts a levee-specific analysis*



Next Steps

- Once standards finalized, completion of modeling approach follows
 - Effort impacted by reduced funding
 - Timeframe for completion not determined
- FEMA will issue guidance to regional offices and local mapping partners on progress and future implementation



Flood Zone Information

- To view current and preliminary maps:
www.elpasotexas.gov/engineering/floodzones
- Information requests may be submitted electronically at floodzones@elpasotexas.gov
 - Mailing address and phone number:
Floodplain Administration
2 Civic Center Plaza-4th
El Paso, Texas 79901
541-4200
- Properties outside city limits must contact the County Floodplain Administrator (546-2015)



Comments/Questions