

CITY OF EL PASO, TEXAS
AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM

DEPARTMENT: Engineering and Construction Management Department
AGENDA DATE: July 3, 2012

CONTACT PERSON/PHONE: R. Alan Shubert, 915-541-4423

DISTRICT AFFECTED: City Wide

SUBJECT:

Update and discussion of the current status of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) project for the El Paso community to include a presentation by the International Boundary and Water Commission on Upper Rio Grande Flood Control Projects.

BACKGROUND / DISCUSSION:

A presentation will be provided by the City's Floodplain Administrator, Alan Shubert, providing an overview of efforts currently underway by FEMA to assess the approach used to analyze communities impacted by levees that are not accredited. As of May 2011, FEMA officially placed the re-mapping project for the El Paso community on hold to allow for the completion of this new modeling approach. A brief background and the current status of this initiative will be outlined as it relates to local floodplain activities. Additionally, the IBWC will provide an update on the Upper Rio Grande Flood Control projects.

PRIOR COUNCIL ACTION:

AMOUNT AND SOURCE OF FUNDING:

BOARD / COMMISSION ACTION:

(N/A)

*****REQUIRED AUTHORIZATION*****

DEPARTMENT HEAD: _____

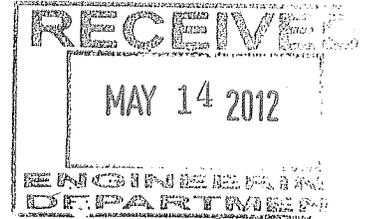

Information copy to appropriate Deputy City Manager

CITY CLERK DEPT.
2012 JUN 28 PM 2:28



FEMA

May 7, 2012



Mr. Alan Shubert, P.E., CFM
City Engineer
City of El Paso
2 Civic Center Plaza, 4th Floor,
El Paso, Texas 79901

RE: Request for Additional Levee Certification Documentation – Rio Grande Recertification
Project extending from International Dam to Riverside Weir

Dear Mr. Shubert:

The Federal Emergency Management Agency (FEMA) has examined the levee certification documentation you have provided regarding the Rio Grande Recertification Project extending from International Dam to Riverside Weir, submitted by the United Section of the International Boundary and Water Commission (USIBWC) on February 1, 2011. Based on the examination of this data information is needed from the City of El Paso on the items as described below:

1. Please verify that all applicable Federal, State, and local laws, regulations and requirements, including, but not limited to, Federal and local floodplain management laws, environmental laws, and permit requirements have been fulfilled.
2. Please provide an interior drainage analysis that identifies the sources of such flooding, the extent of the flooded area, and, if the average depth is greater than one foot, the water-surface elevations of the base flood. This analysis must be based on the joint probability of interior and exterior flooding and the capacity of facilities for evacuating interior flood waters. Interior drainage systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof.
3. Please provide information to verify that the above-referenced levee system meets the requirements of closures under 65.10(b)(2), which requires that all openings must be provided with closure devices that are structural parts of the system during operation and design according to sound engineering practice.
4. Please submit recent inspection reports as required per Section 65.10 of the NFIP Regulations. Specifically, these reports should be focused in the follow subsections of 65.10: (c)(1)(iii), which relates to periodic operation of closure structures for testing and training purposes and (c)(2)(iv), which relates to periodic inspection of interior drainage systems and periodic operation of any mechanized portions for testing and training purposes.

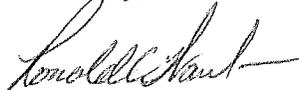
Mr. Shubert
May 7, 2012
Page 2

Since the USIBWC's responsibility is limited to the levee only, the City of El Paso will be sent comments regarding closures and interior drainage analyses, as it relates to the Recertification project. FEMA understands the City of El Paso may not control all closure points, but FEMA would like the City of El Paso to be the point of contact with the actual owner(s) (non-Federal) to obtain and coordinate necessary documentation regarding the closures in this situation in accordance with 65.10(b)(2). In situations where no closure documentation can be obtained or a closure point may be abandoned or under Federal control, FEMA will look to USIBWC, who has ultimate closure authority, to provide closure certification documentation. Once all the comments from both entities have been addressed, FEMA will consider accreditation of the Rio Grande Recertification Project.

FEMA respectfully requests a written response sent to our address above by June 30, 2012, explaining your ability and schedule for providing the requested additional documentation. We look forward to working with you and community officials to fully accredit this levee.

The FEMA lead for this project is Mr. James Orwat. He may be contacted at (940) 898-5302, or by e-mail at james.orwat@fema.dhs.gov.

Sincerely,



for Gary Zimmerer
Risk Analysis Branch Chief

cc: The Honorable John Cook, Mayor, City of El Paso
The Honorable Veronica Escobar, County Judge, El Paso County
Ernie Carrizal, P.E., Flood Plain Administrator, El Paso County
John L. Merino, P.E, USIBWC
The Honorable Trini Lopez, Mayor, City of Socorro
Samuel Leony, Planning and Zoning, Director, City of Socorro
The Honorable Walter Miller, Mayor, City of Horizon
Guillermo Reyes, Director of Public Works, City of Horizon
The Honorable Dale Reinhardt, Mayor, Town of Clint
Susana Rodriguez, Town Clerk, Town of Clint
The Honorable John Cornyn, U.S. Senator
The Honorable Kay Bailey Hutchison, U.S. Senator
The Honorable Silvestre Reyes, U.S., Representative
The Honorable Francisco Canseco, U.S. Representative
The Honorable Carlos I. Uresti, State Senator
The Honorable Jose Rodriguez, State Senator
The Honorable Joe C. Pickett, State Representative
The Honorable Naomi Gonzalez, State Representative

Mr. Shubert
May 7, 2012
Page 3

The Honorable Dee Margo, State Representative
Bet Lotosky, USACE Albuquerque District
The Honorable Chente Quintanilla, State Representative
Michael Segner, CFM, State NFIP Coordinator
Philip Beasley, External Affairs Director, FEMA Region 6
Steve Altman, RAMPP-RSC6

Dedicated to Outstanding Customer Service for a Better Community

S E R V I C E S O L U T I O N S S U C C E S S

**ENGINEERING AND CONSTRUCTION
MANAGEMENT DEPARTMENT**



June 26, 2012

Mr. Gary Zimmerer
Risk Analysis Branch Chief
U.S. Department of Homeland Security
FEMA Region VI
FRC 800 North Loop 288
Denton, Tx 76209-3698

RE: Request for Additional Levee Certification Documentation – Rio Grande
Recertification Project extending from International Dam to Riverside Weir

Dear Mr. Zimmerer:

Please consider this communication as a written response to your letter dated May 7, 2012, referencing the requested additional levee certification documentation (Tab 1).

First and foremost, rest assured that the City of El Paso's goal is to successfully obtain the Federal Emergency Management Agency's (FEMA) levee accreditation for the above referenced system. It is the community's objective to closely work with state, federal, and non-federal entities in an effort to obtain the necessary documentation. To that end, I offer the following responses to the items noted in your letter for your consideration.

1. Verification that all applicable Federal, State, and local laws, regulations and requirements, including, but not limited to, Federal and local floodplain management laws, environmental laws, and permit requirements have been fulfilled.

RESPONSE: The City of El Paso has adopted and enforces local flood plain management regulations in conformance with state and federal laws as set forth in the National Flood Insurance Program, Code of Federal Regulations (CFR.60.3). The City of El Paso has been actively participating in the NFIP by being compliant in land use regulations, development through building codes, zoning regulations and permit system, inspection procedures, and maintaining development records, as well as participating in the Community Rating System (CRS).

2. Please provide an interior drainage analysis that identifies the sources of such flooding, the extent of the flooding area, and, if the average depth is greater than one foot, the water surface elevation of the base flood. This analysis

Mayor
John F. Cook

City Council

District 1
Ann Morgan Lilly

District 2
Susie Byrd

District 3
Emma Acosta

District 4
Carl L. Robinson

District 5
Dr. Michiel R. Noe

District 6
Eddie Holguin Jr.

District 7
Steve Ortega

District 8
Cortney Carlisle Niland

City Manager
Joyce A. Wilson



must be based on the joint probability of interior and exterior flooding and the capacity of facilities for evacuating interior flood waters. Interior drainage systems usually include storage areas, gravity outlets, pumping stations, or a combination thereof.

RESPONSE: Following the 2006 flooding events, the City of El Paso's response was in several parts as described in the adopted El Paso Stormwater Master Plan (2009) beginning with the creation of the Storm Water Utility. The City of El Paso has undertaken a series of drainage system evaluation and audit reports for the existing drainage infrastructure which include basins, dams, channels, reinforced concrete box culverts, pump stations, and storm drainage trunk lines; these and other reports were prepared by URS Corporation (URS) and other private engineering firms, and since then, repairs and upgrades have been accomplished by the El Paso Water Utilities, Storm Water Division, based on recommendations of said reports; In addition, the City of El Paso has adopted a new drainage design manual (DDM) to guide proper land development (Tab 2).

In the near future, the City of El Paso will be requesting a meeting among different state and federal organizations to include US International Boundary and Water Commission, US Army Corps of Engineers, El Paso Water Utilities- Storm Water Division, Texas Water Development Board, and FEMA directors in an effort to find ways to address this item. Certification of the levees is tied to the preliminary FIRM map approvals and this community, like others, is lacking the financial resources, and understanding of the timing for the Levee recertification.

3. Please provide information to verify that the above referenced levee system meets the requirements of closures under 65.10(b)(2), which requires that all openings must be provided with closure devices that are structural parts of the system during operation and design according to sound engineering practice.

RESPONSE: Completed. An engineering analysis report, dated July 2007, has been produced by Conde, Inc. for the Rio Grande Outlet Structures, from the International Dam to Riverside Diversion. Conde's report addresses the installation of closure structures at all outlets to the Rio Grande as mandated by FEMA (Tab 3). Included are the Rio Grande Outlet Structure Improvement plans produced by Conde, Inc. (File No. 238203) (Tab 4).

4. Please submit recent inspection reports as required per Section 65.10 of the NFIP Regulations. Specifically, these reports should be focused in the follow subsections of 65.10:(c)(1)(iii), which relates to periodic operation of closure structures for testing and training purposes and (c)(2)(iv), which relates to periodic inspection of interior drainage systems and periodic operations of any mechanized portions and training purposes.

Mayor
John F. Cook

City Council

District 1
Ann Morgan Lilly

District 2
Susie Byrd

District 3
Emma Acosta

District 4
Carl L. Robinson

District 5
Dr. Michiel R. Noe

District 6
Eddie Holguin Jr.

District 7
Steve Ortega

District 8
Cortney Carlisle Niland

City Manager
Joyce A. Wilson

Dedicated to Outstanding Customer Service for a Better Community

S E R V I C E S O L U T I O N S S U C C E S S



RESPONSE: El Paso Water Utilities, Storm Water Division has submitted inspection reports of the Rio Grande Levee Outfall Infrastructure with its operations plan (Tab 5). Concurrently, USIBWC received the same dated letter of June 4, 2012 and, as per John L. Merino, P.E., USIBWC staff is in the process of compiling the inspection reports to be submitted on or before the deadline of June 30, 2012 (Tab 6).

As delineated above, the City of El Paso has made every effort in providing the required recertification levee information; however, documentation for the internal drainage analysis has become a challenge that needs to be addressed at our tentative meeting with different state and federal organizations.

Sincerely,

R. Alan Shubert, P.E., CFM
City Engineer / Floodplain Administrator

Cc: The Honorable John Cook, Mayor, City of El Paso
The Honorable Veronica Escobar, County Judge, El Paso County
Ernie Carrizal, P.E., Flood Plain Administrator, El Paso County
John L. Merino, P.E., USIBWC
The Honorable Trini Lopez, Mayor, City of Socorro
Samuel Leony, Planning and Zoning, Director, City of Socorro
The Honorable Walter Miller, Mayor, City of Horizon
Guillermo Reyes, Director of Public Works, City of Horizon
The Honorable Dale Reinhardt, Mayor, Town of Clint
Susana Rodriguez, Town Clerk, Town of Clint
The Honorable John Cornyn, U.S. Senator
The Honorable Kay Bailey Hutchison, U.S. Senator
The Honorable Silvestre Reyes, U.S. Representative
The Honorable Francisco Canseco, U.S. Representative
The Honorable Carlos I. Uresti, State Senator
The Honorable Jose Rodriguez, State Senator
The Honorable Joe C. Pickett, State Representative
The Honorable Naomi Gonzalez, State Representative
The Honorable Dee Margo, State Representative
Bet Lotosky, USACE Albuquerque District
The Honorable Chente Quintanilla, State Representative
Michael Segner, CFM, State NFIP Coordinator
Philip Beasley, External Affairs Director, FEMA Region 6
Steve Altman, RAMPP-RSC6
Joyce A. Wilson, City Manager
Jane K. Shang, Deputy City Manager

Mayor
John F. Cook

City Council

District 1
Ann Morgan Lilly

District 2
Susie Byrd

District 3
Emma Acosta

District 4
Carl L. Robinson

District 5
Dr. Michiel R. Noe

District 6
Eddie Holguin Jr.

District 7
Steve Ortega

District 8
Cortney Carlisle Niland

City Manager
Joyce A. Wilson



COEP Floodplain Activities Update



July 3, 2012



Background

- May 24, 2011-FEMA officially placed 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



FEMA Process

- Developed 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
- Performed 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
- 5/07/2012-Request received from FEMA to provide an interior drainage analysis for the Rio Grande Recertification Project from International Dam to Riverside Weir
 - 6/26/2012-Formal response provided to FEMA that we are currently assessing level of effort required with Local, State and Regional partners



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