

MAP IX-Mainland

A Joint Venture of URS, Dewberry, Schaaf & Wheeler, Airborne 1, and TerraPoint

February 25, 2010

Keith Brann, P.E., CFM
Town Engineer
Development Services
11555 W. Civil Center Drive, Bldg. A2
Marana, Arizona 85653-7003

RE: Response to community comments on Revised Preliminary DFIRM and FIS

Dear Mr. Brann:

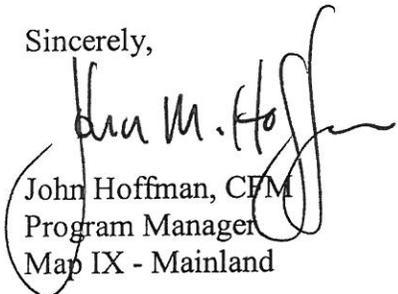
This letter is being sent to you in response to your letter dated June 24, 2009, to the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding your review and comments of the preliminary Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) for the Town of Marana.

As discussed during the June 29, 2009 final Consultation Coordination Officer (CCO) meeting held for the communities in Pima County, FEMA provided the communities a 30-day general comment period for all FIRM and FIS and a statutory 90-day appeal and protest period for the restudy that affected panels within the Town of Marana and Pima County Unincorporated Areas. The Statutory Appeal and Protest period officially began October 16, 2009 and ended January 18, 2010.

We value your comments and contributions to the FIRM production process. Attached to this letter is a table showing a summary of comments your community provided during the 30-day general comment period and MAP IX - Mainland's responses. In cases where the comment was not incorporated as requested, we provided a reason for this decision within the response field of the table.

If you need additional information or assistance, please contact our MAP IX - Mainland Project Manger, Stephanie Routh, by telephone at (602) 943-1585 x110 or via email at srouth@dewberry.com

Sincerely,


John Hoffman, CFM
Program Manager
Map IX - Mainland

Enclosure

cc: Ed Curtis, FEMA Region IX
Suzanne Shields, Pima County Regional Flood Control
Brian Cosson, State NFIP Coordinator
Mike Skowronek, RSC 9

Table 1: Comments and Responses on 3rd Revised Preliminary Map Panels for the Town of Marana		
Panel	Comment	Response
420	Label Pinal Airpark Road, Interstate 10, Union Pacific Railroad, Central Arizona Project Canal, and Missile Base Road.	Changes were made for any labels that fell within the Town of Marana. Any labels that are located outside of the county extent were not labeled to meet FEMA G & S.
440	Delete the two "Derrito Canyon Alluvial Fan" notes at bottom of panel.	Change made as requested.
445	Label Carpenter Ranch Road (parallel with Cottonwood Canyon Wash) within the Town's jurisdictional limits.	Change made as requested.
1010	Change Harding Rd to Hardin Rd.	Change made as requested.
1045	See letter regarding El Rio at Continental Ranch subdivision and the AE floodplain adjacent to western boundary of subdivision. West of mountain, Lambert Lane is labeled Lambert Ln and Silverbell Rd. Delete the Silverbell Road label on the segment of roadway west of the mountain. Better incorporate LOMR around Dove Mountain properties. Label Wild Burro Wash (large wash at middle of panel) and Prospect Wash (Zone AO at extreme lower right corner of panel). Relabel Teale Butte Tr. to Teal Blue Tr. Better incorporate LOMR around Dove Mountain properties. Label Canada Agua West at bottom of panel - left center. Relabel Rehawnk Bl and Torofita Dr. to "Dove Mountain Blvd".	Letter was reviewed and after further investigation no action was deemed necessary to incorporate the unshaded Zone X due to the small size of this area and its relative impact on the surrounding area. Change made as requested. Change made as requested.
1060	Label Canada Agua West at bottom of panel - left center.	Change made as requested.
1065	Relabel Rehawnk Bl and Torofita Dr. to "Dove Mountain Blvd".	Change made as requested.
1070	Change El Camino de Marana to El Camino de Manana in upper left hand corner of panel. Delete Unnamed Wash label at upper center of panel.	Change made as requested. No action was taken - Unnamed Wash is a stream that has had detailed analysis, base flood elevations determined and a flood profile created. Label is necessary for detailed streams shown on FIRRM per FEMA G&S.
1655	Two Lots were dropped from LOMA 02-09-1491A, both lots shown outside floodplain boundary. These two lots were included in original LOMA. Town requests they be included in the revalidation letter for the SOMA dated May 29, 2009. Add Hardy Wash and Yuma Mine Wash annotation to panel.	After communication with FEMA the two lots have been re-added under the LOMA. Updates have been made on the SOMA. See SOMA section at the bottom of this document for further documentation. Change made as requested.

Table 1 (cont) : Comments and Responses on 3rd Revised Preliminary Map Panels for the Town of Marana		
Panel	Comment	Response
1655	Use linework instead of shapes for linear Zone A floodplain on north and south sides of Cortaro Ranch subdivision and place notes stating flooding contained in channel/basin. Town is concerned flood hazard determination companies may erroneously determine adjacent lots to be floodplain. This is only comment overruling CMG drainage study shapes supplied by FEMA.	This change was not made. The Zone A area is larger than a simple switch to a contained in channel designation and no supporting documentation nor line work referenced in the note was provided. The Zone A area is mapped as it was provided in the TSDN from the Marana Restudy.
	Change Zone X annotation to Zone A at the bottom of the panel.	Label not changed. There is a small unshaded Zone X in that location. The leader line has been edited to provide clarity.
	Change annotation from Cortaro Rd. to Cortaro Rd. near SW terminus of Cortaro Road.	Change made as requested.
	Change railroad annotation from Southern Pacific Railroad to Union Pacific Railroad.	Change made as requested.
	Community suggest that Zone X (shaded) just north of RillitoCreek/Santa Cruz River confluence, become a Zone A area to indicate the potential for pit wall failure.	Change made as requested.
1660	See attached letter report and corrected GIS shapfiles regarding Thornydale Crossing commercial subdivision and Zone A flood boundry associated with Carmack Wash adjacent to subdivision.	Letter was reviewed. Zone A was adjusted to match the provided shapfile and realigned Carmack confluence with CDO, but did not make any changes to the CDO.
	Change Starview Drive annotation to Camino de la Tierra. Also add Camino de la Tierra to the northeast (parallel to Canada del Oro Wash).	Change made as requested.
	Town would like to see inclusion of LOMR case # 08-09-1011P - being sponsored by the Town of Oro Valley. LOMR has a impact on parcels within Marana portion of this panel.	LOMR 08-09-1811P was Incorporated.
Jurisdictional Boundaries	Town of Marana has two annexations. Marana Ordinance 2007.30 annexed a portion of Pima County that appears in panel 1010L and Marana Ordinance 2009.09 annexed a portion of Pima County that appears in panel 1655L. Annexations will be effective July 2, 2009.	Changes made as requested

Table 2: Comments and Responses on 3rd Revised Preliminary FIS Text for the Town of Marana

Section # or Table #	Comments	Response
1.2	<p>Make reference to construction of Lower Santa Cruz levee by PCFCD.</p> <p>Refer to drainage study for Lower Santa Cruz levee entitled "Lower Santa Cruz Levee (Continental Ranch to Sanders Road)" by PCFCD and Town of Marana, September 1998.</p> <p>Refer to drainage study performed for Santa Cruz Floodway entitled "Letter of Map Revision, Town of Marana and Pima County, AZ Lower Santa Cruz River RS 9.19 to RS 2.94", January 31, 2003 by Kimley Horn and Associates.</p> <p>Page 3 - References CMG study - Add that the report was titled "Marana Tortolita Alluvial Fan Study", CMG #28004.</p>	<p>Please see section 2.4 of FIS text, construction of the Lower Santa Cruz Levee is mentioned here.</p> <p>Change made as requested.</p>
1.3	<p>Page 5 - add CCO meeting date of June 29, 2009 for current FIS.</p> <p>Page 6 - Add Derrio, Guild, Canada Aqua East, Canada Aqua West and Prospect Washes to the Tortolita Fan detailed study area.</p>	<p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p> <p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p>
Table 2	<p>Page 6 - Remove Tortolita Fan Area from approximate study area.</p>	<p>Change made as requested</p>
Table 3	<p>Add to table 7 LOMR's to Marana</p>	<p>Change made as requested</p>
Table 4	<p>Page 17 - Add July 31, 2006 as being a significant flood date for the Santa Cruz River at Cortaro Farms.</p>	<p>Change made as requested</p>
Table 5	<p>Page 22 - Tortolita Alluvial Fan single sentence could be moved to page 25 or beyond which describes Marana flooding.</p> <p>Page 22 - Paragraph on East embankment of Southern Pacific Railroad could be moved to page 25 or beyond which describes Marana flooding. Due to mergers and acquisitions it is now Union Pacific Railroad. Recommend replacement of name in all of document.</p>	<p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p>
2.3	<p>Page 25 - Santa Cruz flooding paragraph makes no reference to the 1993 or 2006 floods.</p>	<p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p>
	<p>Page 25 - Makes reference to a non-existent section 10.1. Historical pictures of flooding used to be section 10.1 and were remove. Either reinstate or drop the reference to the section.</p>	<p>No change made due to lack of information of these floods in previous FIS report.</p> <p>Change was made as requested, the reference to 10.1 has been removed from the text.</p>

Table 2 (cont) : Comments and Responses on 3rd Revised Preliminary FIS Text for the Town of Marana

Section # or Table #	Comments	Response
2.4	<p>Page 27 - First paragraph should be revised as NW Marana and Rillito are protected by Lower Santa Cruz Levee, which makes the text regarding irrigation canals moot. Also, Green Valley is not downstream from Tucson.</p> <p>Page 31 - Paragraph regarding protection of Pima County Landfill should be revised as the area is protected by Lower Santa Cruz levee.</p> <p>Section should make reference to bank protection on west bank of Santa Cruz from Ina Road to end of Tucson Mountains.</p>	<p>Change made as requested</p> <p>Change made as requested</p> <p>Change made as requested</p>
3.1	<p>Page 38 - Paragraph on CMG drainage study where it references the NOAA Atlas 14, add that upper 90% confidence level was used.</p> <p>Pima County/Oro Valley/Marana study of Canada del Oro (CDO) is missing from the countywide analysis section.</p> <p>CDO restudy values are not shown.</p> <p>Page 42 - Derrito Canyon Wash discharge should be 5,344 cfs per the CMG study.</p> <p>Page 48 - Santa Cruz River at "Cortaro Road" and "Cortaro Farms Road" is either duplication or holdover prior to road realignments. Correct current road name at this crossing is Cortaro Road. Cortaro Farms Road line can be deleted.</p>	<p>Change made as requested</p> <p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p> <p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p> <p>Change made as requested</p>
3.2	<p>Page 65 - Revised analyses section is missing Oro Valley study on the CDO.</p>	<p>Change made as requested</p> <p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p>
3.3	<p>Page 67 - Would be helpful to have formula for the conversion between NGVD and NAVD.</p> <p>Page 71 - Central Arizona Project Canal paragraph should drop inventory ID #71. ID #71 was a farm dike on the west side of I-10 that was not the CAP and was not studied by CMG.</p>	<p>No change made as FEMA G&S Appendix B documents this procedure.</p>
3.4	<p>Provide a statement in this section referencing the Kimley Horn Associates study on the floodway of Northwest Marana beyond Sanders Road entitled "Letter of Map Revision, Town of Marana and Pima County, AZ Lower Santa Cruz River RS 9.19 to RS 2.94", dated January 31, 2003.</p>	<p>Change made as requested</p>
4.2	<p>Provide a statement in this section referencing the Kimley Horn Associates study on the floodway of Northwest Marana beyond Sanders Road entitled "Letter of Map Revision, Town of Marana and Pima County, AZ Lower Santa Cruz River RS 9.19 to RS 2.94", dated January 31, 2003.</p>	<p>Statement addressing this comment is located under section 1.2 in the FIS text.</p>

Table 2 (cont) : Comments and Responses on 3rd Revised Preliminary FIS Text for the Town of Marana

Section # or Table #	Comments	Response
9.0	<p>Page 89 - Bibliography - Dates of the CMG volumes are: Volume 1 April 25, 2008, Revised October 8, 2008; Volume 2 June 16, 2008; Volume 3 October 14, 2008.</p> <p>Two studies referenced earlier in comments 2 and 3 on the Santa Cruz should be added to the bibliography.</p>	<p>Change made as we could with information we could find. Further changes can be incorporated via LOMR or in the next map revision.</p> <p>Change partially made as some information could not be found.</p>

Table 3: Comments and Responses on 3rd Revised Preliminary SOMA for the Town of Marana

LOMC Category	Comments	Response
<p>Category 1 "LOMCs Incorporated"</p>	<p>LOMR 03-09-1071P - portion of Santa Cruz River within Town jurisdiction. Town observed LOMR is reflected in Preliminary DFIRM and suggests LOMR be included in category "Incorporated" in revised SOMA letter. LOMR appeared in 2006 SOMA as "Incorporated". Currently LOMR listed as " To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 1 - Incorporated</p>
	<p>LOMR 02-09-1039P - for Lower Santa Cruz River Levee. Town observed LOMR is reflected in Preliminary DFIRM and suggests LOMR be included in category "Incorporated" in revised SOMA letter. LOMR appeared in 2006 SOMA as "Incorporated". Currently LOMR listed as "To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 1 - Incorporated</p>
	<p>LOMR 98-09-353P - for Santa Cruz River between Cortaro Road and Ina Road. Town observed LOMR is reflected in Preliminary DFIRM and suggests LOMR be included in category "Incorporated" in revised SOMA letter. LOMR appeared in 2006 SOMA as "Incorporated". Currently LOMR listed as " To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 1 - Incorporated with a note in the MIP that it has been partially superseded.</p>
	<p>LOMR 06-09-BD84P - for Santa Cruz River between Rs 6.34 and RS 8.24. Town observed LOMR is reflected in the Preliminary DFIRM and suggests LOMR be included in category "Incorporated" in revised SOMA Letter. Currently LOMR listed as " To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 1 - Incorporated with a note in the MIP that it has been partially superseded.</p>

Table 3 (cont): Comments and Responses on 3rd Revised Preliminary SOMA for the Town of Marana

LOMC Category	Comments	Response
<p>Category 1 "LOMCs Incorporated"</p>	<p>LOMR 06-09-BB43P - for segment of Santa Cruz River. LOMR is outside Town's jurisdictional boundaries, but the Santa Cruz River floodplain does extend from affected area, into Town limits. Town has observed LOMR appears to have been reflected in water surface elevations of Santa Cruz River floodplain extending into Town limits. Suggest LOMR category change to "Incorporated" in revised SOMA letter. LOMC currently not on SOMA letter.</p>	<p>LOMR has been put in SOMA Category 1 - This was issued in Pima Co Uninc and will be on their SOMA. Since this LOMR is incorporated, FEMA will not reissue the case number to change jurisdiction.</p>
<p>Category 2 "Not Incorporated"</p>	<p>LOMA 02-09-1491A - for Silverbell Place subdivision in vicinity of Yuma Mine Wash flood boundary. Town agrees LOMA should be placed in "Not Incorporated" category, but it was noted Lots 109 & 135 were dropped from current SOMA. Lots 109 & 135 are just outside flood boundary limits. Town would prefer lots be included in revalidation for this LOMA on SOMA letter.</p>	<p>After speaking with FEMA the lots have now been re-added to the case. The SOMA and revalidation letter have been reflected to show this.</p>
<p>Category 3 "Superseded"</p>	<p>LOMR 03-09-149P - for Canada Agua East Alluvial Fan. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. LOMR appeared as "Superseded" in revised SOMA letter. LOMR appeared as "Incorporated" on 2006 SOMA letter. Currently listed as "To Be Redetermined".</p> <p>LOMR 04-09-0697P - for Ruellas Wash. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. LOMR appeared as "Incorporated" on 2006 SOMA letter. Currently listed as "To Be Redetermined".</p> <p>LOMR 04-09-0308P - for Prospect Wash. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. LOMR appeared as "Incorporated" on 2006 SOMA letter. Currently listed as "To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 3 - Superseded.</p> <p>LOMR has been put in SOMA Category 1 - Incorporated with a note in the MIP that it has been partially superseded for consistence with other LOMRs partially superseded by Town of Marana restudy.</p> <p>LOMR has been put in SOMA Category 1 - Incorporated with a note in the MIP that it has been partially superseded for consistence with other LOMRs partially superseded by Town of Marana restudy.</p>

Table 3 (cont): Comments and Responses on 3rd Revised Preliminary SOMA for the Town of Marana

LOMC Category	Comments	Response
	<p>LOMR 03-09-0698P - for Ruelas Wash. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. LOMR appeared as "Incorporated" on 2006 SOMA letter. Currently listed as "To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 1 - Incorporated with a note in the MIP that it has been partially superseded for consistence with other LOMRs partially superseded by Town of Marana restudy.</p>
	<p>LOMR 09-09-0300X - for delineation of inactive alluvial fan areas for Canada Agua East Alluvial Fan. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. Currently listed as "To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 1 - Incorporated with a note in the MIP that it has been partially superseded for consistence with other LOMRs partially superseded by Town of Marana restudy.</p>
	<p>LOMR 09-09-0301X - for Canada Agua West. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. Currently listed as "To Be Redetermined".</p>	<p>LOMR has been put in SOMA Category 3 - Superseded.</p>
<p>Category 3 "Superseded"</p>	<p>LOMR 02-09-1197P - for Upper Canada Agua West Alluvial Fan. Portion of affected area is within Town jurisdictional boundaries. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. Currently, not included on SOMA letter.</p>	<p>LOMR has been put in SOMA Category 1 - This was issued in Pima Co Uninc and will be on their SOMA. Since this LOMR is incorporated, FEMA will not reissue the case number to change jurisdiction.</p>
	<p>LOMR-F 01-09-601A - for Lot 113 of Oshrin Park subdivision, having to do with Zone AH resulting from nearby Union Pacific Railroad tracks. Town observed LOMR-F has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. Currently not included on SOMA letter.</p>	<p>LOMAhas been put in SOMA Category 3 - This was initially issued in Pima Co Uninc and will be on their SOMA. Since this is superseded, FEMA will not reissue the case number to change jurisdiction.</p>
	<p>LOMR 00-09-346P - for Hardy Wash. Portion of affected area is within Town jurisdictional boundaries. Town observed LOMR has been superseded by CMG study. Suggests LOMR be in category "Superseded" in revised SOMA letter. Currently, not included on SOMA letter.</p>	<p>LOMR has been put in SOMA Category 1 - This was issued in Pima Co Uninc and will be on their SOMA. Since this LOMR is incorporated, FEMA will not reissue the case number to change jurisdiction.</p>

Table 3 (cont): Comments and Responses on 3rd Revised Preliminary SOMA for the Town of Marana

LOMC Category	Comments	Response
<p>Category 3 "Superseded"</p>	<p>LOMA 06-09-B514A - for Dos Lagos. LOMA originally covered lots 11, 29-21, 24-29 of Dos Lagos subdivision. Subsequent LOMRs removed area from floodplain. LOMA area has been superseded by CMG study. Suggests LOMA be in category "Superseded" in revised SOMA letter. Currently, not included on SOMA letter.</p>	<p>LOMA has been put in SOMA Category 3 - This was initially issued in Pima Co Uninc and will be on their SOMA. Since this is superseded, FEMA will not reissue the case number to change jurisdiction.</p>
<p>Category 4 "To Be Redetermined"</p>	<p>Based on above comments, Town suggest all ten LOMCs currently listed under "To Be Redetermined" category be moved to either "Incorporated" or "Superseded" on revised SOMA letter.</p>	<p>Change made as requested</p>