

Appendix 10D

Draft RFP Comments and Responses – TWDB

October 25, 2022

**TWDB Comments on Region 14 Upper Rio Grande Regional Flood Planning Group's
Draft Regional Flood Plan**

Level 1: Comments and questions must be satisfactorily addressed to meet statutory, agency rule, and/or contract requirements.

General Comments

1. Please ensure that all “Submittal requirements” identified in each of the Exhibit C Guidance document sections are submitted in the final flood plan.

SOW Task 1

2. Entities GIS Feature Class, *Entities*: Several required fields appear to contain invalid entries such as “Unknown”, including the ‘ACTIVE’ field. Please ensure all required fields are populated with valid entries per Exhibit D Table 5 [31 TAC §361.31].
3. Watershed GIS Feature Class, *Watersheds*: Much of the flood planning region does not appear to have any features in this feature class. Please include additional HUC-10 watersheds to layer across rural areas of regions while keeping smaller local watersheds already included [Exhibit D Section 3.2].
4. Existing Flood Infrastructure Table (Exhibit C Table 1): It appears that some fields are missing from the table, including 'Level of Service', 'Condition', 'Deficiency', and 'Owning Entity'. Please ensure all required fields are populated with valid entries per Exhibit C Table 1 [31 TAC §361.31].
5. Existing Flood Infrastructure GIS Feature Class, *ExFldInfraPol*: It appears that some fields contain invalid or missing entries, including 'CONDITION' and 'DESCR'. Please ensure all required fields are populated with valid entries per Exhibit D Table 5. Please utilize NULL to represent either “not applicable” or “unknown”. [31 TAC §361.31, Exhibit D Section 3.3].
6. Existing Flood Infrastructure GIS Feature Classes, *ExFldInfraLn* and *ExFldInfraPt*: It appears that some fields contain invalid or missing entries, including and 'OPER_ENT', 'OWN_ENT', 'CONDITION', and 'DEF_TYPE'. For 'OWN_ENT' and 'OPER_ENT', leave as “999999” if there is no data. Please ensure all required fields are populated with valid entries per Exhibit D Tables 6 and 7, respectively [31 TAC §361.31].
7. Existing Flood Projects GIS Feature Class, *ExFldProjs*: Several required fields appear to contain invalid entries, including, “EXPRJDESC”, 'HUC8', 'STATUS', and 'FUNDING'. Please ensure all required fields are populated with valid entries per Exhibit D Table 8. [31 TAC §361.32].

SOW Task 2A

8. Existing Condition Flood Hazard GIS Feature Class, *ExFldHazard*: It appears that the total hazard area for "Unknown" risk entries within 'FLOOD_FREQ' do not appear to match the "Possible Flood Prone Areas" in Exhibit C Table 3. Please reconcile data, as necessary, across all related deliverables [31 TAC §361.33(b)].

9. Existing Condition Flood Hazard Analysis: Please include total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency as per guidance document (Exhibit C page 24): Submittal requirement number 2.
10. Existing Gaps GIS Feature Class, *Ex_Map_Gaps*: Please update the field, 'GAPS_ID' to 'EXGAPS_ID' per the [Summary of Updates to Exhibit D](#) document available on the TWDB website.
11. Existing Condition Flood Exposure Table (Exhibit C Table 3): There appear to be inconsistencies between Table 3 and the *ExFldExpAll* feature class. For example, counts for Residential Structures and Total Structures do not appear to match. Please ensure data consistency between all related deliverables [31 TAC §361.33, Exhibit C Section 2.2.A.3].
12. Existing Condition Flood Exposure GIS Feature Class, *ExFldExpAll*: There appear to be inconsistencies between Table 3 and the *ExFldExpAll* feature class. For example, counts for Residential Structures and Total Structures do not appear to match. Please ensure data consistency between all related deliverables [31 TAC §361.33, Exhibit C Section 2.2.A.3].

SOW Task 2B

13. Future Condition Flood Hazard Analysis: Please include total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency as per guidance document (Exhibit C page 33): Submittal requirement number 3.
14. Future Condition Flood Exposure Table (Exhibit C Table 5): There appear to be inconsistencies between Table 5 and the *FutFldExpAll* feature class. For example, counts for Residential Structures and Total Structures do not appear to match. Please ensure data consistency between all related deliverables [31 TAC §361.34, Exhibit C Section 2.2.B.3].
15. Future Condition Map Gaps GIS Feature Class, *Fut_Map_Gaps*:
 - a. Please update the field 'GAPS_ID' to 'EXGAPS_ID' per the [Summary of Updates to Exhibit D](#) document available on the TWDB website.
 - b. It appears that some fields are missing entries, including 'HUC8'. Please ensure all required fields are populated with valid entries per Exhibit D Table 10, *Flood_Map_Gaps* GIS feature class [Exhibit D Section 3.5.1.1].
16. Future Condition Flood Exposure GIS Feature Classes, *FutFldExpPol* and *FutFldExpLn*: It appears that some fields are missing entries, including 'COUNTY' and 'HUC8'. Please ensure all required fields are populated with valid entries per Exhibit D Tables 16 and 17, respectively [31 TAC §361.34(c), Exhibit D Section 3.6.2].
17. Future Condition Flood Exposure GIS Feature Class: *FutFldExpAll*:
 - a. It appears that some fields are missing entries, including 'COUNTY', 'HUC8', and 'CRIT_TYPE'. Please ensure all required fields are populated with valid entries per Exhibit D Table 19 [31 TAC §361.34(c), Exhibit D Section 3.6.2].
 - b. There appear to be inconsistencies between Table 5 and the *FutFldExpAll* feature class. For example, counts for Residential Structures and Total Structures do not appear to match. Please ensure data consistency between all related deliverables [31 TAC §361.34, Exhibit C Section 2.2.B.3]

SOW Task 4B

18. Streams GIS Feature Class, *Streams*: It appears that some fields are missing entries, including 'LEN_MILES'. Please ensure all required fields are populated with valid entries per Exhibit D Table 22 [Exhibit D Section 3.9].

19. Flood Management Evaluations (FME) GIS Feature Class, FME: Please populate the 'ENTITY_ID' field with ENTITY_IDs from the *Entities* feature class rather than with the names of entities.
20. Flood Management Evaluations (FME) Table (Exhibit C Table 12): It appears that FME_ID 141000007 is included in the *FME* feature class, but not in the Appendix 4A table. Please ensure data consistency between all related deliverables [§361.38(i), Exhibit C Section 2.4.B].
21. Flood Management Strategies (FMS) GIS Feature Class, *FMS*:
 - a. It appears that some fields contain invalid or missing entries, including 'HUC8' and 'NRNC_COST'. For 'NRNC_COST', please confirm NULL is utilized to represent either "not applicable" or "unknown". Please ensure all required fields are populated with valid entries per Exhibit D Table 26. [31 TAC §361.38(d)].
 - b. Flood Mitigation Strategies GIS Feature Class, *FMS*: Please populate the 'ENTITY_ID' field with ENTITY_IDs from the *Entities* feature class rather than with the names of entities.

SOW Task 5

22. Flood Mitigation Project (FMP) Recommendations, Text: Each recommended FMP must be accompanied with an associated model or supporting documentation to show no negative impact. Please confirm that this was done and provide reference to supporting materials. As per the draft report (Appendix 5B page 3), "*The hydraulic analyses performed as part of the RFP demonstrated that post-project downstream water surface elevations extracted at building footprints are lower than or equal to pre-project water surface elevations. Similar positive benefits were observed throughout the study area, as would be expected since the projects add storage volume to reduce downstream flows. Therefore, there are no negative impacts estimated for the four FMPs listed above, from the El Paso County SWMP.*" For each recommended FMP, please identify in the plan how no negative impact was determined as required by Exhibit C Section 3.6.A (page 108), either via a model, a study or engineering judgement, and submit the associated model, include the model name, study name, or engineering judgement in tabular format. Please ensure this is clearly described for all FMPs [31 TAC §361.39 & Exhibit C 2.5.B]

Level 2: Comments and suggestions for consideration that may improve the readability and overall understanding of the regional flood plan.

General Comments

23. For maps that display large amounts of data (e.g., Maps 4, 6, 8, and 10), please consider a region-wide map and accompanying map index as well as inset maps, as appropriate.

SOW Task 1

24. Entities GIS Feature Class, *Entities*: Please consider reviewing the list of entities with respect to National Parks. For example, "Amistad National Park" should be "Amistad National Recreation Area" and "Chamizal National Park" should be "Chamizal National Memorial". This may affect the count of National Parks in Section 1.3 text.
25. Existing Flood Infrastructure, Text:

- a. Please provide a description of how Low Water Crossings were identified within the text of Chapter 1.
 - b. Please consider expanding on why the unaccredited levees do not meet accreditation requirements.
26. Existing Flood Infrastructure GIS Feature Class, *ExFldInfraPol*:
- a. It appears that NULL data is entered in different fields as "0", "Null", or blank strings. Please consider keeping NULL data consistent across fields.
 - b. Please consider clipping this feature class to the flood planning region.
 - c. Please consider ensuring that provided layers are incorporated, such as Major Reservoirs. Relevant data can be accessed through the Flood Planning Data Hub: <https://twdb-flood-planning-resources-twdb.hub.arcgis.com>. Please incorporate data provided by HUB in this layer (i.e., major reservoirs).
27. Existing Flood Infrastructure GIS Feature Class, *ExFldInfraLn*: It appears that NULL data is entered in different fields as "0", "Null", or blank strings. Please consider keeping NULL data consistent across fields.
28. Existing Flood Infrastructure Map (Exhibit C Map 1): Please consider including a note describing what is included as "Misc. Infrastructure".
29. Existing Flood Projects, Text: In Section 1.8 of the plan, please consider expanding on the summary provided for "Proposed or Ongoing Major Flood Infrastructure and Mitigation Projects."
30. Existing Flood Projects Map (Exhibit C Map 2): Please consider revising the map to help identify the locations and extents of proposed or ongoing projects more easily.

SOW Task 2A

31. Existing Condition Flood Exposure Map (Exhibit C Map 6): Please consider including additional maps with separate categories of exposed features depicted as appropriate. Please consider further specification by differentiating between points, lines, and polygons on this map.
32. Existing Condition Flood Vulnerability Map (Exhibit C Map 7):
 - a. It appears Map 7 depicts all features within the SVI range of 0 to 1. Please consider only including features with SVI scores above 0.75 as described in the guidance document (Exhibit C page 27): Submittal requirement number 3.
 - b. Please consider adding a separate point symbology class for LWCs.

SOW Task 2B

33. Future Condition Flood Hazard GIS Feature Class, *FutFldHazard*: If it is necessary to mark the ENTITY_ID as not applicable or unknown, please leave NULL or use '999999' rather than a blank string (e.g. "" or " ").
34. Future Condition Flood Exposure text: In Section 2.3.6 of the plan, please consider updating the sentence "In addition, the complete existing conditions flood exposure results are summarized at the regionwide level in Table 2.21..." to reflect Table 2.21 depicting future condition flood exposure.
35. Future Condition Flood Exposure Map (Exhibit C Map 11): Please consider including additional maps with separate categories of exposed features depicted as appropriate. Please consider further specification by differentiating between points, lines, and polygons on this map.

36. Future Condition Vulnerability Map (Exhibit C Map 12):
- a. It appears Map 12 depicts all features within the SVI range of 0 to 1. Please consider only including features with SVI scores above 0.75 as described in the guidance document (Exhibit C page 35): Submittal requirement number 3.
 - b. Please consider adding a separate point symbology class for LWCs.

SOW Task 3A

37. Floodplain Management Practices Map (Exhibit C Map 13): Please consider revising the map to distinguish between levels of floodplain management practices such as Strong, Moderate, Low, or None.

SOW Task 4B

38. Flood Mitigation Projects (FMP), Text: Please consider including a written list of FMPs that were identified but determined by the RFPG to be infeasible, including the primary reason for it being infeasible.
39. Flood Management Strategy (FMS), Text: Please consider including a written list of FMSs that were identified but determined by the RFPG to be infeasible, including the primary reason for it being infeasible.
40. Flood Management Evaluations (FME) GIS Feature Class, *FME*: It appears that the field 'ASSOCIATED' is missing from the *FME* feature class. Please consider adding and populating this field with valid entries per the TWDB broadcast email sent on June 3, 2022.
41. Post-Project Flood Hazard GIS Feature Class, *FMP_HazPost*: Please consider developing a *FMP_HazPost* feature class showing an updated hazard area that accounts for the impact of recommended FMPs.

SOW Task 5

42. Flood Mitigation Project (FMP) Details Geodatabase Table, *FMP_Details*: The table appears to be missing entries. Please consider populating as many fields as possible with valid entries [31 TAC §361.39, Exhibit D Section 3.11.3, Exhibit C Section 3.10.C].

RESPONSE TO TWDB COMMENTS

LEVEL 1:

General Comments

1. All "submittal requirements" were checked for inclusion, and the following changes were made to ensure the requirements are fulfilled: (1) Chapter 2 Section 2.2.4 [Existing Vulnerability] was updated to add language regarding the locations of high SVI areas within the region, (2) the "ExFldHazard" and "FutFldHazard" feature classes were updated to specify source and date of publicly-provided flood prone areas, and (3) a summary of flood risks by county and type of flooding (e.g., riverine, local, playa) was added in Sections 2.2.3 and 2.3.6.

Scope of Work (SOW) Task 2A

2. Invalid entries in the "ACTIVE" field were updated to valid "Yes" or "No" values.
3. Added all 187 HUC10 features in FPR14.
4. Required fields were added and populated with valid entries to Appendix Table 1B (Existing Flood Infrastructure Summary).
5. Changed 'Non-Functional' to 'Non-functional'; added a description to the "DESCR" field where NULL (3 entries).
6. Fixed missing/invalid attributes; ExFldInfraLn: Deleted 5 features with zero length: 14009554,14009557,14010083,14010485,14010488.
7. Appendix Table 1C has been revised to only include valid entries based upon Exhibit D, Table 8. Also, the ExFldProjs has been updated to reflect the information in the revised Appendix Table 1C.
8. There are 89 polygons for FLOOD_FREQ ='Unknown' (SOURCE ='Public'). Portions of the originally drawn 'Public' polygons are in Mexico. Total hazard areas have been updated in the Exhibit C Table 3 with portions located in Mexico noted as a footnote below the table.
9. A summary of the region's existing condition total land area of flood risks by flood risk type, county, and frequency has been added to Chapter 2 Sections 2.2.3.
10. The fields 'GAPS_ID' and 'EXGAPS_ID' have been updated per the "Summary of Updates to Exhibit D" document.
11. Cumulative values (for 1% AC and 0.2% events) were used for the 0.2% in the initial summary tables. Appendix Table 2A (Existing Condition Flood Risk Summary) has been updated to report results for the 1% and 0.2% storm events separately.

12. Cumulative values (for 1% AC and 0.2% events) were used for the 0.2% in the initial summary tables. The "ExFldExpAll" feature class has been updated to report results for the 1% and 0.2% storm events separately.

SOW Task 2B

13. A summary of the region's future condition total land area of flood risks by flood risk type, county, and frequency has been added to Chapter 2 Sections 2.3.6
14. Cumulative values (for 1% AC and 0.2% events) were used for the 0.2% in the initial summary tables. Appendix Table 2B (Future Condition Flood Risk Summary) has been updated to report results for the 1% and 0.2% storm events separately. In addition, small features outside of the region boundary were deleted: Deleted 43 features (County="") from "FutFldExpPol" feature class; Deleted 2 features (County="") from "FutFldExpLn" feature class; Two buildings outside the region boundary, partially in the FP adjacent to El Paso County, were added to the building total.
15. Field has been changed to 'FUTGAPS_ID' per the Summary of Updated to Exhibit D.
16. Missing entries have been added to "COUNTY" and "HUC8" fields.
17. Small features outside of the county boundary were deleted: Deleted 43 features (County="") from "FutFldExpPol" feature class; Deleted 2 features (County="") from "FutFldExpLn" feature class.

SOW Task 4B

18. Populated 'LEN_MILES'. All other required fields have been checked to ensure valid entries.
19. Values in the "ENTITY_ID" field have been updated to reflect ENTITY_IDs from the Entities feature class rather than the names of the entities. In the process, additional nonspatial entity records were added to the "Entities_Table" table in the geodatabase to ensure all entities were captured in either the "Entities" feature class or the "Entities_Table" table (no additional spatial records were added to the "Entities" feature class).
20. FME ID 1410000007 has been removed from the feature class which is consistent with the FME tables in Appendices 4A, 4B, and 5C.
21. Two-part response:
 - a. Due to some FMSs extending across a large portion of the region, the list of associated HUC8 names is longer than can fit in the 255 character limit for the "HUC8" field. TWDB confirmed that "HUC8" values longer than 255 characters should be changed to NULL (email 12/5/22). For "NRNC_COST" field, NULL is utilized to represent "not applicable" or "unknown".
 - b. Values in the "ENTITY_ID" field have been updated to reflect ENTITY_IDs from the Entities feature class rather than the names of the entities. In the process, additional nonspatial entity records were added to the "Entities_Table" table in the geodatabase to ensure all entities were captured in either the "Entities" feature class or the

“Entities_Table” table (no additional spatial records were added to the “Entities” feature class).

SOW Task 5

22. A column named, "How No Negative Impact was Determined" has been added to Appendix Table 5D: "Flood Mitigation Projects Recommended by RFGP". This column documents whether models, previous studies, or engineering judgment were utilized to determine no negative impact. Additional information has also been added to Appendix 5B to clarify which method was used to determine no negative impact. In addition, a new Appendix 5H was added to Chapter 5 to document existing and proposed flood depths at buildings to demonstrate no negative impact where models were used.

LEVEL 2:**General Comments**

23. Maps 4 & 8 have index and multi-pages; Map 6 has insets. Added insets to Map 10.

SOW Task 1

24. The following names were changed: "Chamizal National Park" to "Chamizal National Memorial"; "Amistad National Park" to "Amistad National Recreation Area"; and "Rio Grande National Park" to "Rio Grande Wild and Scenic River"
25. Two-part response:
- a. A description of how Low Water Crossings is provided in Section 1.7.1 "Stream Crossings". The section has been renamed to "Stream and Low Water Crossings" for clarity.
 - b. A paragraph has been added to section 1.7.2.5 discussing potential reasons for unaccredited levees in El Paso County (note that FMS 142000001 is included to develop full coordination among stakeholders to inventory and address non-accreditation issues).
26. Two-part response:
- a. Zeros ("0") and blank strings were converted to NULL values;
 - b. Features are clipped to flood planning region; c. Added 4 Major Reservoirs, IDs 14064579 - 14064583.
27. NULL data for the "ExFldInfraLn" feature class has been corrected for consistency.
28. Map 1 has been updated with the additional information.
29. The summary has been expanded with additional information in Section 1.8.
30. Symbolology for the Existing Flood Projects Map was revised for better clarity.

SOW Task 2A

31. Symbolology for the Existing Condition Flood Exposure Map was revised for better clarity.
32. The SVI was adjusted for >0.75 and LWC were added to the Existing Condition Flood Vulnerability Map.

SOW Task 2B

33. This issue has been corrected.
34. The sentence has been corrected to reflect Table 2.21 depicting future condition flood exposure.
35. Symbolology for the Future Condition Flood Exposure Map was revised for better clarity.
36. The SVI was adjusted for >0.75 and LWC were added to the Future Condition Flood Vulnerability Map.

SOW Task 3A

37. No changes were made to the map since data pertaining to levels of floodplain management practices are not currently available for the region.

SOW Task 4B

38. As stated in Section 5.2 of Chapter 5, "There were no potential FMEs or potentially feasible FMSs or FMPs that were evaluated and found to be infeasible by the RFPG."
39. As stated in Section 5.2 of Chapter 5, "There were no potential FMEs or potentially feasible FMSs or FMPs that were evaluated and found to be infeasible by the RFPG."
40. Values have been populated for 'ASSOCIATED'.
41. Due to budget and time constraints, this Post-Project Flood Hazard GIS Feature Class, FMP_HazPost has not been included in this first cycle of the RFP. This feature class is specified by TWDB as optional.

SOW Task 5

42. The geodatabase has been populated with the information from Appendix Table 5F.