



APPENDIX D

TWDB and Public

Comments

Lower Colorado-Lavaca Region - TWDB Comments and Responses

Task Number	Comment Number	TWDB Comment	Level Number	Response
General	1	Please ensure that all "Submittal requirements" identified in each of the Exhibit C Guidance document sections are submitted in the final flood plan.	1	All "submittal requirements" identified in each of the Exhibit C Guidance document sections were included in the final flood plan.
1	2	Existing Infrastructure GIS Feature Class, ExFldInfraPt: Please include all low water crossings (LWCs) identified during the flood planning process in this feature layer. The ExFldExpAll feature class contains 1,916 LWCs, and the ExFldInfraPt feature class contains only 1,354 LWCs. Note: This is required in contrast to the optional LWC feature class. See Table 7 of Exhibit D for a list of valid entries [31 TAC §361.31].	1	LWXings in the region total 1,354 in InfraPt. Exposed LWXing Pts in ExFldExpPnt and ExFldExpAll total 1,132, Difference is due to Exposure features only includes those within ExFldHaz footprint.
1	3	Existing Projects Table (Exhibit C Table 2): Please include the expected year of completion for all ongoing projects. NULL may be utilized when not applicable or unknown. [31 TAC §361.32(3)].	1	Year of completion was added where available. "<Null>" was added where unknown.
1	4a	Existing Projects GIS Feature Class, ExFldProjs: Please refrain from using numeric placeholders (such as "999999") in numeric fields such as 'COMP_YR' as this causes errors in calculations.	1	<NULL> was added where information is unknown.
1	4b	Existing Projects GIS Feature Class, ExFldProjs: Please include the expected year of completion for all ongoing projects.	1	Year of completion was added where available.
1	4c	Existing Projects GIS Feature Class, ExFldProjs: It appears that some fields contain invalid entries, including 'COMP_YR', 'STATUS' and 'EXHAZ_ID'. Please utilize NULL to represent either "not applicable" or "unknown". Please populate all required fields with valid entries per Exhibit D Table 8 [31 TAC §361.32].	1	Content was added where available. <NULL> was added where information is unknown.
2A	5	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.	1	This was discussed in the text including a table summarizing the results.
2A	6	Existing Condition Flood Risk Analysis: Please include a clear reference to Exhibit C Table 3 in the text. As per Exhibit C, page 27: Once Task 2A Existing Condition Flood Risk Analyses is complete, RFPGs must include a summary table with findings summarizing flood risk by county [31 TAC §361.33].	1	Text was added to the report to reference appropriate supporting tables, maps, and spatial data.
2A	7	Existing Condition Flood Exposure (Exhibit C Table 3): Please ensure that the feature counts for both Residential Structures and total Structures are consistent with the ExFldExpAll GIS feature class counts [31 TAC §361.33(b)].	1	Both the number of total and residential structures within the 1% and 0.2% flood hazard in the ExFldExpAll feature class align with the submitted Exhibit C Table 3.
2A	8	Existing Condition Flood Exposure GIS Feature Class, ExFldExpPt: Please ensure that the following critical facility types are included in the Polygon (ExFldExpPol) feature class instead of the Point (ExFldExpPt) feature class: Schools, hospitals, and fire stations. Critical Infrastructure buildings should not be in the point layer. Please review and revise as necessary within the GIS feature class submissions [31 TAC §361.33(c), Exhibit D Section 3.5.2].	1	Critical Facilities were received as point data. Exposed critical facility points were assigned to the closest building footprint with other attempts to properly assign the appropriate polygon. Eight critical facilities remain as points as no structure footprint present in GIS file but was feasible via inspection of aerial imagery. This adjustment adjusted the exposed critical facilities causing associated updates in multiple chapters.

TABLE D.1: TWDB COMMENTS AND RESPONSES

Task Number	Comment Number	TWDB Comment	Level Number	Response
2A	9a	Existing Condition Flood Exposure GIS Feature Class, ExFldExpAll: All entries under 'SVI' appear to be "0" or "-999999". Please refrain from using numeric placeholders (such as '-999999') in numeric fields such as 'SVI' as this causes errors in calculations. Please review entries and revise as necessary to reflect accurate SVI values [31 TAC §361.33(c)-(d)].	1	Structures were only feature assigned SVI values. Populated all other fields and "-999999" fields as "<Null>"
2A	9b	Existing Condition Flood Exposure GIS Feature Class, ExFldExpAll: It appears that some fields contain invalid entries, including 'CRIT_TYPE'. Please populate 'CRIT_TYPE' using the updated valid entry list: "Medical, Police, Fire, EMS, Shelter, School, Infrastructure, Water Treatment, Wastewater Treatment, Power Generation, Other" per Exhibit D Table 19 and the Summary Update to Exhibit D document available on the TWDB website.	1	All features that are Critical Facilities have entries in the "CRIT_TYPE" field that align with valid entries. Any feature not assigned as CRITICAL field = "Yes" was populated as "<Null>"
2A	10	Existing Condition Gaps GIS Feature Class, Ex_Map_Gaps: It appears that some fields contain invalid entries, including 'FLOOD_FREQ'. Please complete all required fields with valid entries per Exhibit D Table 10. Additionally, please use the highest frequency that applies. For both 1% and 0.2% flood frequencies, please do not include a "%" symbol [31 TAC §361.33(b)(5), Exhibit D Section 3.1.1].	1	Fields were amended to valid entries. "1" was used for the fields that indicated all frequencies are missing and "0.2" was used to indicate areas missing that frequency only.
2B	11	Future Condition Flood Hazard Analysis: Please include a summary of total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency in Chapter 2 of the regional flood plan, per Submittal requirement #3 of Exhibit C Section 2.2.B.1.	1	This was discussed in the text including a table summarizing the results.
2B	12	Future Condition Flood Risk Analyses: Please include a reference to Exhibit C Table 5 in the text. As per guidance document (page 35): Once Task 2B Future Condition Flood Risk Analyses is complete, RFPGs must include a summary table with findings summarizing flood risk by county (Exhibit C Table 5).	1	Text was added to the report to reference appropriate supporting tables, maps, and spatial data.
2B	13	Future Condition Gaps GIS Feature Class, Fut_Map_Gaps: It appears that some fields contain invalid entries, including 'FLOOD_FREQ'. Please complete all required fields with valid entries per Exhibit D Table 10. Additionally, please use the highest frequency that applies. For both 1% and 0.2% flood frequencies, please do not include a "%" symbol [31 TAC §361.34(b)(6)].	1	Fields were amended to valid entries. "1" was used for the fields that indicated all frequencies are missing and "0.2" was used to indicate areas missing that frequency only.
2B	14a	Future Condition Flood Exposure GIS Feature Class, FutFldExpAll: All entries under 'SVI' appear to be "0" or "-999999". Please refrain from using numeric placeholders (such as '-999999') in numeric fields such as 'SVI' as this causes errors in calculations. Please review entries and revise as necessary to reflect accurate SVI values [31 TAC §361.34, Exhibit D Section 3.6.2].	1	Structures were only feature assigned SVI values. Populated all other fields and "-999999" fields as "<Null>"

TABLE D.1: TWDB COMMENTS AND RESPONSES

Task Number	Comment Number	TWDB Comment	Level Number	Response
2B	14b	Future Condition Flood Exposure GIS Feature Class, FutFldExpAll: It appears that some fields contain invalid entries, including 'CRIT_TYPE'. Please populate 'CRIT_TYPE' using the updated valid entry list: "Medical, Police, Fire, EMS, Shelter, School, Infrastructure, Water Treatment, Wastewater Treatment, Power Generation, Other" per Exhibit D Table 19 and the Summary Update to Exhibit D document available on the TWDB website.	1	All features that are Critical Facilities have entries in the "CRIT_TYPE" field that align with valid entries. Any feature not assigned as CRITICAL field = "Yes" was populated as "<Null>"
3B	15	Goals (Exhibit C Table 11): It appears that some fields are missing entries, including 'Residual Risk'. Please complete all required fields with valid entries [31 TAC §361.36, Exhibit C Section 2.3.B].	1	Residual Risk was added to Table 11.
3B	16	Goals GIS Feature Class, Goals: It appears that some fields are missing entries, including 'RESIDUAL'. Please complete all required fields with valid entries per Exhibit D Table 21 [31 TAC §361.36].	1	Residual Risk was populated with text from Table 11. The goals are not associated with one another, so they are populated with NULL.
4B	17	Flood Management Evaluations (FME) Table (Exhibit C Table 12): There appear to be inconsistencies between related text, FME feature class, and Exhibit C Table 12. The text mentions 188 FMEs, while Exhibit C Table 12 only shows 185 FMEs. Please review and revise so that the data is consistent across all related deliverables. [31 TAC §361.38(i), Exhibit C Section 2.4.B].	1	Table 12 has been updated to include all of the potential FMEs that were identified in the Task 4B Screening Process. The list matches the Recommended FME list because all of the actions identified at the end of Task 4B were approved for inclusion in Task 5.
4B	18	Flood Management Evaluations GIS Feature Class, FME: It appears that some fields contain invalid entries, including 'FLD_TP_RIV', 'FLD_TP_CST', and 'LWC'. Please complete all required fields with valid entries per Exhibit D Table 23.	1	NULL were used in place of "Unknown" and "-9999" values.
4B	19	Flood Management Evaluations (FME) Map (Exhibit C Map 16): The Map appears to be based on the Recommended FME list instead of the list of all identified FMEs. Please revise map, as appropriate, to show all identified FMEs [§361.38(m), Exhibit C Section 2.4.A].	1	Map 16 has been updated to include all of the potential FMEs that were identified in the Task 4B Screening Process. The list matches the Recommended FME list because all of the actions identified at the end of Task 4B were approved for inclusion in Task 5.
4B	20a	Flood Mitigation Projects (FMP) Table (Exhibit C Table 13): There appear to be inconsistencies between Chapter 4 text, FMP feature class, and Exhibit C Table 13. For example, Exhibit C Table 13 includes 30 identified FMPs, however, Table 16 and the FMP feature class show 54. Please review and revise so that the data is consistent across all related deliverables.	1	Table 13 has been updated to include all of the potential FMPs that were identified in the Task 4B Screening Process. The list matches the Recommended FMP list because all of the actions identified at the end of Task 4B were approved for inclusion in Task 5.
4B	20b	Flood Mitigation Projects (FMP) Table (Exhibit C Table 13): There appear to be several invalid entries for the 'BCR' field. Please review and update the table and related FMP feature class as necessary per Exhibit D Table 24 [§361.38(c-e)].	1	Per guidance received from TWDB, 0 BCR values were used for certain project types, such as generators and FEWS. For all other types of FMPs, BCR values were populated in the tables and database.
4B	21	Flood Mitigation Projects GIS Feature Class, FMP: Approximately 51 FMPs do not appear to include a BCR in the FMP table (Table 13), the Recommended FMP table (Table 16), FMP_Details GIS table, or the FMP feature class. Please populate the BCR field Table 13, Table 16, and FMP Details table, and populate the 'BC_RATIO' field in the FMP feature class as required. Please ensure changes made are represented across all related deliverables (text, table, GIS, and map)	1	Per guidance received from TWDB, 0 BCR values were used for certain project types, such as generators and FEWS. For all other types of FMPs, BCR values were populated in the tables and database.

TABLE D.1: TWDB COMMENTS AND RESPONSES

Task Number	Comment Number	TWDB Comment	Level Number	Response
4B	22	Flood Management Strategies (FMS) Table (Exhibit C Table 14): Table 14 includes a footnote stating, "No Potential FMSs were identified at end of Task 4B", however, Table 17 Recommended FMSs contains data for 5 FMSs. Please ensure that Table 14 is consistent with the number of entries in Table 17 and revise as necessary [31 TAC §361.38(d), Exhibit C Section 2.4.B].	1	Table 14 has been updated to include all of the potential FMSs that were identified in the Task 4B Screening Process. The list matches the Recommended FMS list because all of the actions identified at the end of Task 4B were approved for inclusion in Task 5.
4B	23a	Flood Management Strategies GIS Feature Class, FMS: Please refrain from using numeric placeholders (such as "999999") in numeric fields such as 'FMS_COST' as this causes errors in calculations. Please use NULL when the field is not applicable or unknown. Please reconcile.	1	<NULL> was added where information is unknown.
4B	23b	Flood Management Strategies GIS Feature Class, FMS: It appears that some fields contain invalid entries, including 'COUNTY', 'HUC8' and 'FMS_TYPE'. Please complete all required fields with valid entries per Exhibit D Table 26. [§361.38, Section Exhibit D 3.10].	1	The recommended FMSs are region-wide and span all counties and HUC8s in the region. For region-wide FMSs, the 'COUNTY' and 'HUC8' fields were left NULL to avoid exceeding the 255 character limit.
4B	24	Flood Management Strategies (FMS) Map (Exhibit C Map 18): Map 18 does not appear to show spatial extents of any potential FMSs; however, Map 21 Recommended FMSs does appear to show FMS spatial extents covering the entire Flood Planning Region. Please ensure that Table 14 is consistent with the number of entries in Table 17 and revise as needed [31 TAC §361.38(d), Exhibit C Section 2.4.B].	1	Map 18 has been updated to include all of the potential FMSs that were identified in the Task 4B Screening Process. The list matches the Recommended FMS list because all of the actions identified at the end of Task 4B were approved for inclusion in Task 5.
5	25	Flood Management Evaluations Recommendations GIS Feature Class, FME: It appears that some fields contain invalid entries, including 'FLD_TP_RIV', 'FLD_TP_CST', and 'LWC'. Please complete all required fields with valid entries per Exhibit D Table 23.	1	NULL were used in place of "Unknown" and "-9999" values.
5	26	Flood Mitigation Projects (FMP) Recommendations: There appear to be inconsistencies between Chapter 5 text, FMP feature class, and Exhibit C Table 16. For example, text on page 5-39 states that there are 53 recommended FMPs, but Table 16 and the FMP feature class show 54. Please review and revise so that the data is consistent across all related deliverables [31 TAC §361.39].	1	Number mismatches were identified and reconciled where applicable
5	27a	Flood Mitigation Project Recommendations Table (Exhibit C Table 16): Approximately 51 FMPs do not appear to include a BCR in Exhibit C Table 13, Exhibit C Table 16, FMP_Details geodatabase table, or the FMP feature class. Please populate the BCR field across all related FMP deliverables, as required.	1	Per guidance received from TWDB, 0 BCR values were used for certain project types, such as generators and FEWS. For all other types of FMPs, BCR values were populated in the tables and database.
5	27b	Flood Mitigation Project Recommendations Table (Exhibit C Table 16): Several recommended FMPs appear to remove 100% (or more) the number of structures, population, etc. from flood risk. For example, FMP IDs 103000005 and 103000026. Please ensure the accuracy of data for all recommended projects as this will affect how they appear in the state flood plan [31 TAC §361.39].	1	Reviewed and revised, as necessary. For several projects, we've recently received models and created post-project shapefiles to use to generate flood risk reduction benefit information.

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5	28a	Flood Mitigation Project Recommendations GIS Feature Class, FMP: Please refrain from using numeric placeholders (such as '999999') in numeric fields such as 'COSTSTRUCT' and 'REMROADCLS' as this causes errors in calculations.	1	<NULL> was added where information is unknown.
5	28b	Flood Mitigation Project Recommendations GIS Feature Class, FMP: Please populate the BCR field across all related FMP deliverables, as stated above [31 TAC §361.39].	1	Per guidance received from TWDB, 0 BCR values were used for certain project types, such as generators and FEWS. For all other types of FMPs, BCR values were populated in the tables and database.
5	29	Flood Management Strategy Recommendations: In Table 5.6 in Chapter 5, please revise the costs of some FMSs to \$0 instead of "TBD" [31 TAC §361.39].	1	"TBD" has been revised to "Unknown" to be consistent with the geodatabase. We are using NULL in the geodatabase to represent that the cost for these strategies is unknown at this time.
5	30a	Flood Management Strategy Recommendations GIS Feature Class, FMS: Please refrain from using numeric placeholders (such as "999999") in numeric fields such as 'FMS_COST' as this causes errors in calculations. Please leave NULL when the field is not applicable or unknown. Please reconcile.	1	<NULL> was added where information is unknown.
5	30b	Flood Management Strategy Recommendations GIS Feature Class, FMS: It appears that some fields contain invalid entries, including 'COUNTY', 'HUC8' and 'FMS_TYPE'. Please complete all required fields with valid entries per Exhibit D Table 26. [31 TAC §361.39, Exhibit D Section 3.10].	1	The recommended FMSs are region-wide and span all counties and HUC8s in the region. For region-wide FMSs, the "COUNTY" and 'HUC8' fields were left NULL to avoid exceeding the 255 character limit.
General	31	Please be mindful of PDF file sizes that allow the public to easily open and/or download the regional flood plan.	2	File sizes were reduced as much as possible without losing quality.
General	32	Some of the maps included throughout the text may be difficult for some readers to interpret in the printed document, including blurriness and lack of color separation, for example, in Figure 1.20 Dams and Levees. If using MS Word, please consider changes, including potentially increasing the default resolution fidelity to improve image quality.	2	File sizes increase as resolution is increased in mapping. Effort was taken to balance the resolution and file size.
General	33	The same RFPG voting membership page appears to be included twice in the document.	2	Duplication was removed.
General	34	For in-text maps, please consider enlarging legends and/or maps for legibility. For example, Figures 2.6 Locations where Hydrologic and Hydraulic Models are Available and 2.13 Low Water Crossings within the Existing 100-year Floodplain were difficult to read on the printed page.	2	Legends were enlarged where possible.
General	35	To better align with our agency's preferred nomenclature, please consider using the name, "Cursory Floodplain Data" instead of "Fathom" or Cursory Fathom Data" throughout the regional flood plan.	2	"Cursory Floodplain Data" was adjusted however the introduction remained as Fathom. Text updated where appropriate and maps kept at "Cursory Fathom Data".
General	36	For all maps, please consider ways to increase map legibility. For example: Map 1, Existing Infrastructure; and Map 4, Existing Condition Flood Hazard appear difficult to read.	2	Maps were reviewed and updated appropriately.
General	37	For all Maps, please consider providing inset maps or breaking the map up into multiple, small-scale maps to better visualize features, as appropriate, to increase legibility. For example, Map 6, Existing Condition Flood Exposure.	2	Maps were reviewed and updated appropriately.

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General	38	Please consider adding a row for showing totals in the tables where appropriate.	2	Summation rows was added where appropriate to tables in the text.
Executive Summary	39	ES-14 Table ES.4 & Table 5.3: Summary of Recommended FMPs: FMP Type, "Regional Detention Facilities" is listed, but with number 0. Please consider removing this FMP type if it's not included in the list of recommended FMPs.	2	Regional Detention Facilities row was removed.
1	40a	Planning Area Description: Pie chart pg. 1-55. Please consider using a labeled bar graph instead of a pie chart to display this information. As-is, stakeholders may find it difficult to differentiate between the types of ongoing flood mitigation projects.	2	Pie chart was reviewed and adjusted to a bar chart
1	40b	Planning Area Description: For non-functional or deficient natural flood mitigation features or major flood infrastructure, please consider providing the name of the owner and operator of the major flood infrastructure or reference the table in Ch 1.	2	As the RFPG received no direct input for non-functional or deficient mitigation features, owners will not be specifically referenced. No action necessary.
1	40c	Planning Area Description: Table 1.2 Cities in the river basin with population greater than 10,000: The top row of the table appears difficult to read when printed. Please consider revising for legibility.	2	Legibility was improved where possible.
1	40d	Planning Area Description: Table 1.5 2050 HUC-8 Watershed Population Projections. HUC-8s are outlined in the map, however counties are labeled, which may be confusing for readers. As the accompanying text lists HUC-8 names, please consider labeling HUC-8s on the map as a reference.	2	HUC-8 names were added to the map.
1	41	Entities GIS Feature Class, Entities: it appears that some non-required fields contain invalid entries, including 'CID'. Please complete all fields with valid entries per Exhibit D Table 3. Please provide the FEMA-assigned community number (6-digit with the first two being "48" for Texas) or CID for entities if available. 'CID' can be populated with NULL if not applicable or unknown.	2	<Null> was added where information is unknown or non-participating.
1	42	Existing Flood Projects GIS Feature Class, ExFldProjs: For the field 'EXHAZ_ID', please confirm that all "NULL" or "999999" values used represent either "not applicable" or "unknown".	2	Confirmed NULL values reflect areas outside the floodplain. No action necessary.
1	43a	Existing Infrastructure: Please provide a description of how Low Water Crossings were identified by the RFPG within the text of Chapter 1.	2	Text was added to indicate LWXings were obtained from TWDB and amended with survey input.
1	43b	Existing Infrastructure: Chapter 2, top of pg. 2-3: There appear to be several typos in this section of text which may impact readability. Please consider reviewing and revising for legibility.	2	Text was updated.
1	44	Deficient Infrastructure Map (Exhibit C Map 3): Please consider defining acronyms like LWC and NHD gage in the legend to enhance reader comprehension	2	Legend was updated.
1	45a	Proposed or Ongoing Projects: Under the "Structural Projects Under Construction" section, the text appears to refer to, "Chapter 2" rather than "Table 2" which may confuse readers. Please consider revising.	2	Text was updated.
1	45b	Proposed or Ongoing Projects: There does not appear to be a text reference to Map 2. Please review and consider including a text reference Map 2, as appropriate.	2	Text was added to the report to reference appropriate supporting tables, maps, and spatial data.

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Task Number	Comment Number	TWDB Comment	Level Number	Response
2A	46	Existing Gaps Map (Exhibit C Map 5): Please consider clarifying the term "Reason" in the Map 5 legend, for example, as "Reason for Gap", to assist readers.	2	Legend was updated.
2A	47a	Base Level Engineering coverage for Llano County is depicted in Figure 2.3 Floodplain quilt but does not appear to be included in the Model Coverage map. Please consider reviewing and revising as necessary. Any models relevant to the FMEs, FMSs, or FMPs recommended in the plan should be included in the ModelCoverage GIS feature class and related map.	2	Llano BLE models were included in the Model Coverage.
2A	47b	NFHL Preliminary models for Victoria, Bastrop and Hays Counties do not appear to be included. Please verify that available NFHL models are included in the map to their full extents.	2	Preliminary models for Bastrop County are included. Zone A models for Hays County and Victoria County were also added.
3A	48	Floodplain Management Practices: Throughout Chapter 3 the acronym for the Texas Flood Management Association (TFMA) appears to be shown as "TMFA". Please consider reviewing and revising as necessary.	2	Text in the report was updated.
4A	49	Flood Mitigation Needs Analysis: Please consider reviewing the "Floodplain Management" row in in-text Table 4.1 and confirm that the 'greater than' and 'less than' comparison operators are applied correctly.	2	Confirmed. No action necessary.
4A	50	Greatest Gaps Map (Exhibit C Map 14): In Figure 4.9, please consider clarifying the "No Model Gaps" classification to aid reader comprehension. For example, regarding whether it indicates that there are no gaps in model coverage or that there are no data gaps, or both.	2	Legend was updated to indicate model coverage.
4B	51a	Flood Management Evaluation (FME) text (Chapter 5): Please consider verifying that identified FMEs do not duplicate effort of TWDB-funded FIF Category 1 studies and state how the FME will expand on and/or utilize the existing study. For example, FIF ID 40133 (Travis County - Master Flood Plan Phase 1) appear to overlap with listed several FMEs including FME_IDs 101000082 and 101000158.	2	Language was added after the FME table (including a table of the FIF Cat 1 Studies) that acknowledges the overlap. It is difficult to know if there is overlap due to lacking information but we do not believe there to be overlapping scope and note Sponsors need to verify.
4B	51b	Flood Management Evaluation (FME) text (Chapter 5): For county-wide watershed evaluations where most of the county falls outside of the RFPG boundary, please consider providing justification how the FME would benefits the adjacent major river basin. Please consider coordinating with other RFPGs to ensure that planning efforts are not duplicated.	2	Language was added after the FME table that acknowledges the overlap. Because these are regional studies there is no overlapping scope and are attempting to determine if costs need to be split proportionally or if that has been done by the Sponsor already. Any unresolved items in the final plan will be resolved in the amended plan.
4B	51c	Flood Management Evaluation (FME) text (Chapter 5): For areas with existing BLE models, please consider stating how the FME would improve upon the current BLE models. BLE status and availability can be viewed here: https://www.twdb.texas.gov/flood/science/ble-status-viewer.html	2	Language was added after the FME table to indicate the BLE can be used for floodplain management where it is best available data. Also noted that where there are no existing models (or out dated models) the BLE can be used as the starting point for detailed studies to update floodplains and/or support project planning. Any unresolved items in the final plan will be resolved in the amended plan.

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Task Number	Comment Number	TWDB Comment	Level Number	Response
4B	52	Flood Management Evaluation GIS Feature Class, FME: Please consider filling out 'MODEL_DESC' field for clarity on existing studies to be used. Please make sure to document existing or ongoing BLE and FIF Category 1 studies.	2	This level of information is not available at this time for all FMEs. Due to time and budget constraints to gather and develop this information, this change will not be made in the final regional flood plan.
4B	53	Flood Management Strategies (FMS) text (Chapter 5): There appears to be a typo on Table 5.6. Please consider updating Table 5.6 column titles to "FMS" instead of "FMP".	2	The typo was corrected.
5	54a	Flood Management Evaluation (FME) Recommendations text: Please verify that identified FMEs do not duplicate effort of TWDB-funded FIF Category 1 studies and state how the FME will expand on and/or utilize the existing study. For example, FIF ID 40133 (Travis County - Master Flood Plan Phase 1) appear to overlap with listed several FMEs including FME_IDs 101000082 and 101000158.	2	Language was added after the FME table (including a table of the FIF Cat 1 Studies) that acknowledges the overlap. It is difficult to know if there is overlap due to lacking information but we do not believe there to be overlapping scope and note Sponsors need to verify.
5	54b	Flood Management Evaluation (FME) Recommendations text: Please verify that identified FMEs do not duplicate effort of TWDB-funded FIF Category 1 studies and state how the FME will expand on and/or utilize the existing study. For example, FIF ID 40133 (Travis County - Master Flood Plan Phase 1) appear to overlap with listed several FMEs including FME_IDs 101000082 and 101000158.	2	Language was added after the FME table (including a table of the FIF Cat 1 Studies) that acknowledges the overlap. It is difficult to know if there is overlap due to lacking information but we do not believe there to be overlapping scope and note Sponsors need to verify.
5	54c	Flood Management Evaluation (FME) Recommendations text: For areas with existing BLE models, please state how the FME would improve upon the current BLE models. BLE status and availability can be viewed here: https://www.twdb.texas.gov/flood/science/ble-status-viewer.html	2	Language was added after the FME table (including a table of the FIF Cat 1 Studies) that acknowledges the overlap. It is difficult to know if there is overlap due to lacking information but we do not believe there to be overlapping scope and note Sponsors need to verify.
5	55	Flood Management Evaluations Recommendations GIS Feature Class, FME: Please consider adding the 'ASSOCIATED' field to the FME feature class and populating as applicable per the Flood Planning Data Update – FMX Questions and Fields email sent on June 3, 2022 (attached).	2	Reviewed and revised, as possible.
9	56	Please provide a reference to the backup data and basis that supports the following statement in the plan: “Overall, an estimated \$370,330,350 in state and federal funding is needed to implement the recommended FMEs, FMSs, and FMPs.” (pg. 9-11).	2	The survey methodology is described in Chapter 9, Flood Infrastructure Financing Survey section on page 9-11 and Table 19 presents the survey results for each FME, FMS, and FMP. Clarifying text was added to Chapter 9.

Lower Colorado-Lavaca Region - TWDB March 28, 2023 Comments and Responses

Comment No.	SOW Task No.	Task Name	Item Type	Ex C Item	Ex D Table No.	Ex D feature class	Level 1	Level 2	RFPG Response
1	10	Files Submitted					Note that we have revised our PDF document submittal process following internal discussions. Please submit one PDF document for the body of the RFP, and no more than one PDF per appendix.		The combined PDFs are larger than the suggested TWDB file size, but the appendices were combined.
2	10	Guidance Principles and No Negative Impact Statement	Text	Section 2.11			The Region Flood Plan does not appear to contain a statement, as required in 31 TAC §361.20, that the plan conforms with the guidance principles in Title 31 TAC §362.3, including an explanation of how the Plan satisfies the requirements of each of the guidance principles including that the plan will not negatively affect a neighboring area. This is included in the cover letter for the Region 10 plan submittal, but does not appear to be included in the plan itself. Please reconcile by including this statement in the final regional flood plan.		A table of how the plan conforms to the guidelines was added to Chapter 10.
3	1	Existing Projects	Table	Table 2			Please populate required field 'Project Status'. Two entries appear to be NULL for this field. Please use the valid entries "Proposed" or "Ongoing".		Project Status" was updated in Table 2 and in the ExFldProjs layer in the GBD with "Proposed" or "Ongoing" as appropriate.
4	1	Existing Projects	GIS feature class		8	ExFldProjs	Please populate the required field 'STATUS' with only values from the valid entry list. Please use the valid entries "Proposed" or "Ongoing". Three entries appear to be NULL for this field.		Project Status" was updated in Table 2 and in the ExFldProjs layer in the GBD with "Proposed" or "Ongoing" as appropriate.
5	2A	Existing Exposure	Table	Table 3			Roadway Stream Crossings in Unknown% annual risk is 4 in the geodatabase as opposed to 0 in the Exhibit C Table 3. Please reconcile.		From TWDB on 4/6/23: "Upon further investigation, it looks like there was a miscalculation on our part in the geodatabase. Our Flood Data team has confirmed that there is no further action on your part for TWDB Comment 5."
6	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll	The sum of feature counts in the ExFldExpPt, ExFldExpLn, and ExFldExpPol feature classes does not equal count of this ExFldExpAll feature class.		There was one duplicate point created in the ExFldExpAll during the process moving critical facility points to building footprints. Point removed.
7	2A	Model Coverage	GIS feature class		N/A	ModelCoverage	Multiple models appear to have the same Model ID (10000000011). Please use unique IDs for each model.		Model ID 10000000011 is the same model used for FMPs 103000006, 103000007, 103000011. This is a continuous model of Wilbarger Creek where the proposed projects are simulated in the same model. Suggest keeping this as a the same model ID versus multiple model IDs for the same hydraulic model.

TABLE D.1: TWDB COMMENTS AND RESPONSES

Comment No.	SOW Task No.	Task Name	Item Type	Ex C Item	Ex D Table No.	Ex D feature class	Level 1	Level 2	RFPG Response
8	2A	Model Coverage	GIS feature class		N/A	ModelCoverage		Please populate Model Type in the spreadsheet with the 'MODEL_TYPE' from the ModelCoverage feature class, instead of Software type. Valid entries for 'MODEL_TYPE' are Hydraulic, Hydrologic, Coastal, Combined Riverine-Coastal, 2D, Risk Assessment, Economics/BCA, Other, Unknown.	Model Type in the spreadsheet was amended with the Model Type in the ModelCoverage layer. The prior Model Type column in the spreadsheet was re-named "Model Software."
9	2A	Model Coverage	GIS feature class		N/A	ModelCoverage		For model 100000000009, the corresponding boundaries between ModelCoverage and TDIS are not congruent, with the TDIS boundary being a larger simplified boundary. Please reconcile.	There are multiple ModelCoverage polygons that overlap the model 100000000009 polygon. The Coverage_100000000009 feature class for TDIS aligns to the ModelCoverage feature class for model 100000000009.
10	2B	Future Hazard	Map 8	Section 2.2.B.1				Inset map appears difficult to read based on size. Please consider including this as a separate full-page map.	Increased the size of the inset map. For consistency, updated Maps 4, 6, 8 and 11.
11	2B	Future Exposure + Vulnerability	GIS feature class		19	FutFldExpAll		Expected critical facilities such as 'EMS' appear to be missing. Please confirm this is correct.	Evaluated HIFLD EMS and found these point are already included as fire stations and hospitals. Note: HIFLD EMS are not provided on the flood data hub.
12	2B	Future Exposure	Map 11	Section 2.2.B.2				Inset map appears difficult to read based on size. Please consider including this as a separate full-page map.	Increased the size of the inset map. For consistency, updated Maps 4, 6, 8 and 11.
13	3B	Goals	Table	Table 11				Target Year for Short Term (10 year) should be 2033, not 2023	Short Term (10 year) were all changed to 2033.
14	4B	FME	Table	Table 12				Cumulative Estimated Population at flood risk is 343,254 in the geodatabase as opposed to 488,602 in the Exhibit C Table 12. Please reconcile.	The values in the geodatabase are correct. Updated Exhibit C table (Table 12) to match.
15	4B	FME	GIS feature class		23	FME		For 'FME_TYPE', only values on the valid entry list should be used ("Watershed Study" is not a valid entry). Valid entries for 'FME_TYPE' are Watershed Planning, Project Planning, Preparedness, Other.	Updated this field with valid entries.
16	4B	FMP	GIS feature class		25	FMP_HazPost		The entries for POSTHAZ_ID do not appear to match the required format of 2-digit region number plus 6 additional digits. Please use the specified format for all ID fields.	Updated these IDs to conform to the correct format.
17	4B	FMP	GIS feature class		25	FMP_HazPost		***Several features appear to contain invalid entries for the following fields: 'FLD_TP_RIV', 'FLD_TP_CST', 'FLD_TP_LOC', 'FLD_TP_PLY', 'FLD_TP_OTH', and 'REGULATORY'. Please ensure that these fields are only populated with valid entries as listed in Exhibit D Table 25.	Investigated this issue and found that all fields were populated with valid entries. Please advise if there is further action needed.

Comment No.	SOW Task No.	Task Name	Item Type	Ex C Item	Ex D Table No.	Ex D feature class	Level 1	Level 2	RFPG Response
18	4B	FMS	GIS feature class		26	FMS	FMS_ID 102000003 appears to contain an invalid entry for the 'FMS_TYPE' field. Please ensure that only valid entries listed in Exhibit D Table 26 are used. For example, "Low Water Crossing Assessment, Prioritization, and Mitigation" is not a valid entry.		Updated this field with valid entries.
19	5	FME Recs	Table	Table 15			The cumulative estimated population at flood risk is 343,254 in the geodatabase as opposed to 488,602 in the Exhibit C Table 15. Please reconcile.		The values in the geodatabase are correct. Updated Exhibit C table (Table 15) to match.
20	5	FMP Recs	Table	Table 16			The cumulative number of structures with reduced 1% annual chance flood risk is 23 in the geodatabase as opposed to 0 in the Exhibit C Table 16. Please reconcile.		The values in the geodatabase are correct. Updated Exhibit C table (Table 16) to match.
21	5	FMP Details	GDB	3.10.C		3.11.3 [FMP_Details]	The sum of # of Structures in 1% Annual Chance FP (Pre-Project) is 2,045 in FMP as opposed to 2,613 in FMP_Details. Please reconcile.		The values in the FMP feature class are correct. Updated the project details to match.
22	5	FMP Details	GDB	3.10.C		3.11.3 [FMP_Details]	# of Structures with Reduced 1% Annual Chance Flood Risk is 23 in FMP as opposed to 351 in FMP_Details. Please reconcile.		The values in the FMP feature class are correct. We updated the project details to match.
23	5	FMP Details	GDB	3.10.C		3.11.3 [FMP_Details]	FMP 103000051 has a cost of 310,000 in the FMP feature class and 31,000 in the FMP_Details gdb table. Please reconcile.		The values in the FMP feature class are correct. Updated the project details to match.
24	5	FMP Details	GDB	3.10.C		3.11.3 [FMP_Details]	Two projects have discrepancies in SVI (FMP ID: 103000011 and 103000050). Fourteen projects have population in floodplain discrepancies (POP_100 in FMP vs POP_CMNTY in FMP_Details). Please reconcile.		The values in the FMP feature class are correct. Updated the project details to match.
25	5	FMS Recs	Table	Table 17			The cumulative estimated population at 1% flood risk is 749,345 in the geodatabase as opposed to 1,104,355 in the Exhibit C Table 17. Please reconcile.		The values in the geodatabase are correct. Updated Exhibit C table (Table 17) to match.
26	5	FMS Recs	Table	Table 17				The table header appears to be cut off and only shows "Lower Colorad".	Re-printed Table 17 showing entire header.
27	5	FMS Recs	Map 21	Section 2.5.C				It appears difficult to discern the coverage areas of individual FMSs. Please consider color graduations or some other method of displaying FMSs.	No change. All FMSs are region-wide strategies. Color gradient would not change the map.
28	All	Accessibility			Section 2.2			Figures alternative text and other elements alternative text failed in accessibility check. Please consider adding alternative text as appropriate.	Efforts were given to avoid failures, but given the technical nature of the appendices a few remain.

Comment No.	SOW Task No.	Task Name	Item Type	Ex C Item	Ex D Table No.	Ex D feature class	Level 1	Level 2	RFPG Response
29	All	Accessibility			Section 2.2		We noted 11 failures when reviewing the PDF submittal with the Adobe Acrobat accessibility full check. At a minimum, please ensure that the following document properties are satisfied. PDF documents must have a very good document title, the primary language must be set to English, and the primary view must be set to document title. PDFs must also be tagged documents.		Report Body accessibility report is provided showing passing of these previous failures.

Lower Colorado-Lavaca Region - Public Comments and Responses

Organization and Individuals	Summary of Comments	Response
West Brazoria County Drainage District No. 11	Request addition of a Flood Management Evaluation - District-wide Drainage Master Plan.	Request approved by RFPG and FME included in final Regional Flood Plan.
City of Fredericksburg	Request reclassification of a Flood Mitigation Project to a Flood Management Evaluation.	Request approved by RFPG and FME included in final Regional Flood Plan.
City of Johnson City	Expressed support for recommendations pertaining to Blanco County and the City of Johnson City.	No revisions to final Regional Flood Plan.
City of Frdericksburg	Request to reclassify a Flood Mitigation Project to a Flood Management Evaluation	Request approved by RFPG and FME included in final Regional Flood Plan.
Wharton County	Request to include 14 new Flood Management Evaluations and 3 Flood Mitigation Projects.	Six (6) FMEs approved by RFPG for inclusion in final regional plan. Includes one (1) FME sponsored by the City of El Campo. Other requested additions are expected to be considered during the plan amendment process Spring 2023.
U.S. Army Corps of Engineers	Establish non-regulatory regional flood control or drainage districts in rapidly growing urban areas.	General comments not specific to Region 10 flood plan. No revisions to final Regional Flood Plan.
	Clarify statutory authority of counties to regulate floodplains.	
	Require use of channel conditions that would result if a channel for project is not maintained.	
	Only allow maintenance by organizations with the necessary capabilities and capacity.	
	Prevent loss of valley storage at the 500-year flood level. Allow redistribution of valley storage.	
	Establish future land use plans for unincorporated areas in proximity to rapidly urbanizing areas.	
	Use projected fully developed conditions for floodplain regulation and development of mitigation projects.	
	Encourage storm shifting/centering to validate 100-yr flood and possibility of actual flood risk.	
	Watershed Hydrology Assessments: add detail to leverage studies and update as new precipitation is available.	
	For large urban centers establish regional approach to development of future condition flood risk .	

TABLE D.2: PUBLIC COMMENTS AND RESPONSES

Texas Parks and Wildlife Department	Support Regional Flood Planning process and TWDB’s “integrative” approach to flood risk management.	General comments not specific to Region 10 flood plan. No revisions to final Regional Flood Plan.
	Prioritize non-structural flood risk management strategies before structural (e.g., policy, land management, emergency management).	
	Encourage use of nature-based approaches where possible.	
	Include ecological and societal benefits of flooding in education programs.	
	Encourage consideration of TCEQ environmental flow standards for the Colorado and Lavaca Rivers and for Matagorda and Lavaca Bays.	
	Include in Chapter 1, a map depicting ecoregions as delineated by either EPA for TPWD	
	Recognize that flooding is a natural process that has beneficial effects.	
	Concerns about adverse environmental/ecological impacts of stream channelization, structural measure at low water crossings, and on-channel impoundments.	
Supports policy recommendations included in Regional Flood Plan for stream crossing design to avoid/minimize impacts, tax incentives for stream and riparian protection, incentives for green infrastructure and nature-based flood risk reduction strategies.		

TABLE D.2: PUBLIC COMMENTS AND RESPONSES

<p>Texas Department of Transportation</p>	<p>TxDOT does not use transportation projects for flood relief.</p> <p>Can partner/cost-share with local entities to address flooding issues at roadway crossings that are planned for improvements — suggest looking for such opportunities at a statewide level.</p> <p>Research project underway to assess roadway flooding statewide - results could point to locations where coordination and collaboration would be beneficial.</p> <p>Technical: 1. Methodology used to assess risk at inundated roadways is very conservative 2. TxDOT roadway centerline is not always on pavement and sometimes is in the center of a divided highway or corridor and may not capture elevated roadways.</p>	<p>General comments not specific to Region 10 flood plan. No revisions to final Regional Flood Plan.</p>
<p>National Wildlife Federation</p>	<p>Concern about evaluation of natural flood mitigation features for level of function and use in flood risk mitigation (e.g., lack of Texas-specific data).</p> <p>Prioritize funding for preventative flood mitigation strategies, for protection natural infrastructure, and for implementation of nature-based solutions.</p> <p>Ensure cost-benefit analyses give appropriate weight to social and economic benefit and avoidance of adverse environmental impact.</p> <p>Recognize the role that land development codes and location of infrastructure have on flood impacts.</p> <p>Provide training and technical resources to advance understanding and adoption of nature-based solutions and best practices for maintaining floodplains and other natural flood mitigation features</p> <p>Provide training and technical resources to advance understanding and adoption of nature-based solutions and best practices for maintaining floodplains and other natural flood mitigation features.</p>	<p>General comments not specific to Region 10 flood plan. No revisions to final Regional Flood Plan. Summary of plan elements related to nature-based solutions for flood risk reduction provided in Chapter 10 of the Regional Flood Plan.</p>

TABLE D.2: PUBLIC COMMENTS AND RESPONSES

Hill Country Alliance and Greater Edwards Aquifer Alliance	Strongly recommend implementation of nature-based flood risk reduction strategies. Comments and recommendations mirror many of those provided by the NWF and the Greater Edwards Aquifer Alliance (letter from GEAA was attached to HCA comments).	General comments not specific to Region 10 flood plan. No revisions to final Regional Flood Plan. Summary of plan elements related to nature-based solutions for flood risk reduction provided in Chapter 10 of the Regional Flood Plan.
	Emphasis on prevention and protection/restoration of natural features that provide flood risk reduction and other social and environmental benefits.	
	Increase training and funding available to implement nature-based solutions.	
	Promote regional approach to floodplain management using nature-based solutions.	
	Provide counties with greater authority over land use as it affects natural features that provide flood risk reduction features and provide counties with authority to levy drainage utility fees.	
	Provide counties and groundwater districts with authority to protect natural aquifer recharge features.	
Review recommended FMXs to determine feasibility to include or increase nature-based elements.		
Great Springs Project	Request addition of a Flood Management Evaluation - Assess flood risk; assess and quantify the flood mitigation impacts of GSP land conservation and trail development as well as how GSP may contribute to adjacent flood mitigation efforts; and develop proposals for FMSs and FMPs for inclusion in the Region 10 Regional Flood Plan.	The Great Springs Project area spans portions of both Region 10 and Region 11. Coordination between the regions resulted in the proposed FME being included only in the Region 11 Regional Flood Plan.
B. Baczewski	Llano County FME #72 Prepare Evacuation Plan – County should retain/maintain existing systems for flood warning such as sirens and marquee.	No revisions to the final regional flood plan.
Joseph King	Glen Flora flooding and stream erosion concerns.	Flood Management Evaluation proposed by Wharton County to address concerns has been included in the final Regional Flood Plan.
Ann Yakimovicz	Align watershed protection plans with state and regional flood plan to ensure flood risk reduction and water quality improvements are considered together.	An administrative policy recommendation addressing this comment has been included in the final Regional Flood Plan.

TABLE D.2: PUBLIC COMMENTS AND RESPONSES

<p>Donna Bednarik, Fred Bednarik, Robert Bednarik, William Bowden, Larry Brown, Barabara Brunken, Kenneth Cordero, Jed Darland, Dorothy Erminger, Helen Dokal, Joy Gallagher, Debra Halfmann, Dale Henry, Cindy Jones, Sheba Kothman, Carrie Langerhans, Bruce Lehmberg, Susan Mason, Ann Petrosky, Wanda Rueffer, David Stubbs, Sandy Stubbs, Daniel Walker, James Walker, Gerald Wernecke, Lesa Wireman, Janice Witt, Cheryl Woelfel</p>	<p>Commentors expressed strong concerns about and opposition to any infringement on private property and groundwater rights and several requested that assurances be provided that the Regional Flood Plan will not infringe upon such rights.</p> <p>Request that text from Chapter 18 of the <i>1992 United Nations Agenda 21</i>, specifically <i>18.11 (b)</i> and <i>18.12 (a)</i> through <i>(p)</i>, be included in the Regional Flood Plan - sees Agenda 21 as the precursor to SB8 establishing the state and regional flood planning process. Oppose United Nations 2030 Sustainable Development Goals as a rebrand of United Nations Agenda 21 .</p>	<p>No revisions to the final Regional Flood Plan. Response to concerns are addressed in Chapter 10.</p>
<p>William Bowden</p>	<p>Concern that Region 10 RFPG failed to provide adequate notice to the public to ensure public input as the minutes of meetings document almost no public comment.</p>	<p>No revisions to the final Regional Flood Plan. Overview of public outreach and engagement efforts during the planning process is provided in Chapter 10.</p>