

## Update from Consultant Team


Neches Regional Flood Planning Group

November 16, 2023

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## Agenda

- Overview of Comments on Amended Regional Flood Plan from TWDB
- Expense Budget Adjustments



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### Amended Regional Flood Plan TWDB Comments

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- Comments received November 7, 2023
- Two comment levels:
  - **Level 1** – Directly linked to specific statute, rule or contract requirements, **MUST** be addressed for amended plan review to continue
  - **Level 2** – Issues highlighted by TWDB in the plan that are not required to be resolved and resubmitted
- Resubmission of all relevant files and materials to TWDB required no later than November 20th

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### TWDB Comments – Level 1 Overview

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- Directly linked to statute, rule, or contract requirements; must be addressed for the amended plan review to continue.
  - Exhibit C: Technical Guidance for Regional Flood Planning
  - Exhibit D: Data Submittal Guidelines for Regional Flood Planning
- Common themes found in comments:
  - Ensure consistency between text, tabular data, and GIS data
  - Clarification of GIS data entries and flood risk sources
  - Examine GIS deliverables to ensure conformance with submittal requirements

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### TWDB Comments – Level 2 Overview

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- Suggested changes by TWDB to improve plan document
  - Not strictly required to be addressed for the review of the amended plan to continue
- Common themes found in comments:
  - Requests to clarify text and address minor typos found in plan
  - Requests to re-examine GIS data and adjust for conformity with tabular data as appropriate
  - Requests to populate optional GIS data fields provided the necessary data to do so is available

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### Expense Budget Update

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Category	Original Budget	Revised Budget	Amount Changed	% Change
Salaries & Wages	\$ 353,323.33	\$ 383,214.75	\$ 29,891.42	8.46%
Fringe	\$ 223,300.35	\$ 242,191.72	\$ 18,891.37	8.46%
Travel	\$ 12,000.00	\$ 4,501.33	\$ (7,498.67)	- 62.49%
Other Expenses	\$ 8,000.00	\$ 3,905.59	\$ (4,094.41)	- 51.18%
Subcontractor Services	\$ 537,133.00	\$ 450,084.40	\$ (87,048.60)	- 16.21%
Overhead	\$ 414,508.33	\$ 449,576.05	\$ 35,067.72	8.46%
Profit	\$ 174,834.99	\$ 189,626.16	\$ 14,791.17	8.46%
<b>Total</b>	<b>\$ 1,723,100.00</b>	<b>\$ 1,723,100.00</b>	-	-

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Region 5 Neches Amended Regional Flood Plan									
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 (Preliminary)
1	1	Existing Infrastructure	GIS feature class		5	ExFldInfraPol		COND_DESCR and DEF_DESCR are Null for the entire feature class. Please consider populating if information is available.	In the preparation of the data for the first planning cycle, no further information was able to be obtained for the fields for the ExFldInfraPol feature class.
2	1	Existing Infrastructure	GIS feature class		6	ExFldInfraLn		COND_DESCR and DEF_DESCR are Null for the entire feature class. Please consider populating if information is available.	In the preparation of the data for the first planning cycle, no further information was able to be obtained for the fields for the ExFldInfraLn feature class.
3	1	Existing Infrastructure	GIS feature class		7	ExFldInfraPt		COND_DESCR and DEF_DESCR are Null for the entire feature class. Please consider populating if information is available.	A few dams within the ExFldInfraPt feature class have the COND_DESCR populated via information taken from TCEQ's databases. However, no further information was able to be found for DEF_DESCR.
4	1	Existing Projects	GIS feature class		8	ExFldProjs	Please populate required field COST.		This was a comment that appeared in the RFI issued for the Final Regional Flood Plans back in April 2023. Comment read, "Values are missing for required field 'COST'. However, Null is allowed if this information is not available. Please supply this information if available." Information on costs for the projects that have Null in the "COST" field were unable to be obtained for the current planning cycle.
5	2A	Existing Hazard	GIS feature class		9	ExFldHazard	There are 8 records with AREA_SQMI=0. Please modify, as appropriate.		This was a result of how the ExFldHazard feature class was constructed for both the March 2022 Technical Memorandum and the August 2022 Draft Regional Flood Plan. It was intended to keep each entry in the feature class within its own county and its own flood data source to prevent overlaps. Due to this methodology, there are some entries in the ExFldHazard feature class that will have extremely small areas such that they appear in the AREA_SQMI as 0 - they do not have 0 area, but rather an area so small GIS calculates the value to be 0. The area is greater than 0 but is not large enough to be accurately reflected within the field of the feature class.
6	2A	Existing Hazard	GIS feature class		9	ExFldHazard	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the ExFldHazard feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
7	2A	Existing Exposure	GIS feature class		11	ExFldExpPol	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the ExFldExpPol feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
8	2A	Existing Exposure	GIS feature class		12	ExFldExpLn	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the ExFldExpLn feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
9	2A	Existing Exposure	GIS feature class		13	ExFldExpPt	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the ExFldExpPt feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
10	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the ExFldExpAll feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
11	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll		Structures in 1% annual risk is 34,624 in the geodatabase as opposed to 34,728 in the Exhibit C table. Please consider modifying.	34,728 is the correct value, but upon conducting a Select by Attributes process where FLOOD_FREQ = 1, EXP_GEOM = "Polygon," and EXP_TYPE is not equal to "Agricultural Land," the value being reported was 34,728.
11	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll		Structures in 0.2% annual risk is 77,717 in the Exhibit C table as opposed to the 0.2% value in the geodatabase (42,901) or the 1%+0.2% value in the geodatabase (77,525). Please consider modifying.	77,717 is the correct value, but upon conducting a Select by Attributes process where FLOOD_FREQ = 1 or 0.2, EXP_GEOM = "Polygon," and EXP_TYPE is not equal to "Agricultural Land," the value being reported was 77,717.
11	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll		Structures in Unknown% annual risk is 26,524 in the geodatabase as opposed to 26,543 in the Exhibit C table. Please consider modifying.	26,543 is the correct value, but upon conducting a Select by Attributes process where FLOOD_FREQ = "Unknown," EXP_GEOM = "Polygon," and EXP_TYPE is not equal to "Agricultural Land," the value being reported was 26,543.
12	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll	Required field SVI contains Nulls. Please verify that SVI is not available in these locations.		The Technical Consultant will review the ExFldExpAll feature class and edit the SVI field such that all entries in the feature class have SVI values populated.
13	2A	Existing Exposure + Vulnerability	GIS feature class		14	ExFldExpAll	Notable critical infrastructure 'Wastewater Treatment' and 'Power Generation' are missing in CRIT_TYPE. Please confirm this is correct.		Power Generation and Wastewater Treatment facilities are already included in the critical infrastructure and are labeled as "Infrastructure" in the CRIT_TYPE field. Please refer to Chapter 1 Section 1.A.2.d for a reference as to which critical facilities were labeled as "Infrastructure."
14	2A	Model Coverage	GIS feature class		N/A	ModelCoverage	There are 25 models listed in the HHModels spreadsheet, but only 11 were uploaded to TDIS MS2 system. Please modify, as appropriate.		For the initial submission of the Amended Regional Flood Plan, there were multiple projects associated with a single watershed and were such included in one HEC-RAS model with different plans made for each of the projects. The Technical Consultant will edit the HHModels spreadsheet to specify which HEC-RAS plans included in the TDIS submission correlate to their respective projects.

## Region 5 Neches Amended Regional Flood Plan

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 (Preliminary)
15	2A	Model Coverage	GIS feature class		N/A	ModelCoverage		Model IDs in HHModels spreadsheet should have 12-character length (RR+10 digits). Please ensure Model IDs match those in Model Coverage feature class	The Technical Consultant will edit the HHModels spreadsheet to implement this change.
16	2A	Model Coverage	GIS feature class		N/A	ModelCoverage	Several models in the ModelCoverage feature class and the corresponding model boundary feature class uploaded to TDIS MS2 system are not congruent (Ex: 050000000005, 050000000008, 050000000015, 050000000023) . Please ensure they have the same boundary for consistency.		The Technical Consultant will examine discrepancies between the ModelCoverage feature class and the model boundaries utilized for the TDIS submissions. Errors will be rectified as necessary.
17	2A	Model Coverage	GIS feature class		N/A	ModelCoverage		Please consider populating optional field MODEL_ID in FMP feature class to match HHModels spreadsheet.	The Technical Consultant will proceed to update the MODEL_ID field in the FMP feature class to match the HHModels spreadsheet as necessary.
18	2B	Future Hazard	GIS feature class		15	FutFldHazard	There are 22 records with a AREA_SQMI=0. Please modify, as appropriate.		This was a result of how the FutFldHazard feature class was constructed for both the March 2022 Technical Memorandum and the August 2022 Draft Regional Flood Plan. It was intended to keep each entry in the feature class within its own county and its own flood data source to prevent confusing overlaps. Due to this methodology, there are some entries in the FutFldHazard feature class that will have extremely small areas such that they appear in the AREA_SQMI as 0 - they do not have 0 area per se, but rather an area so small GIS calculates the value to be 0. The area is greater than 0 but is not large enough to be accurately reflected within the field of the feature class.
19	2B	Future Hazard	GIS feature class		15	FutFldHazard	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the FutFldHazard feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
20	2B	Future Exposure	GIS feature class	2.2.B.2	16	FutFldExpPol	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the FutFldExpPol feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
21	2B	Future Exposure	GIS feature class		17	FutFldExpLn	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the FutFldExpLn feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
22	2B	Future Exposure	GIS feature class		18	FutFldExpPt	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the FutFldExpPt feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
23	2B	Future Exposure	GIS feature class		19	FutFldExpAll	There are no records for coastal (FLD_TP_CST='Yes') or local (FLD_TP_LOC='Yes') at 0.2% flood risk. Please confirm this is correct.		During the construction of the FutFldExpAll feature class for earlier submittals of the Regional Flood Plan, information on Coastal and Local flood risk for the 500-YR event was either unavailable in the floodplain quilt on unable to be obtained.
24	2B	Future Exposure	GIS feature class		19	FutFldExpAll		Required field SVI contains Nulls. Please verify that SVI is not available in these locations.	The Technical Consultant will review the FutFldExpAll feature class and edit the SVI field such that all entries in the feature class have SVI values populated.
25	2B	Future Exposure + Vulnerability	GIS feature class		19	FutFldExpAll	Notable critical infrastructure Wastewater Treatment and Power Generation are missing in CRIT_TYPE. Please confirm this is correct.		Power Generation and Wastewater Treatment facilities are already included in the critical infrastructure and are labeled as "Infrastructure" in the CRIT_TYPE field. Please refer to Chapter 1 Section 1.A.2.d for a reference as to which critical facilities were labeled as "Infrastructure."
26	4B	FME	GIS feature class		23	FME	Cumulative Estimated Population at flood risk is 358,663 in the geodatabase as opposed to 498,548 in the Exhibit C table; In the FME feature class Please modify, as appropriate.		The Technical Consultant will examine the discrepancy and make the appropriate edits to either the Exhibit C spreadsheet or the GIS data.
27	4B	FME	GIS feature class		23	FME	109 recommended FME has/have a higher total population in 1% flood risk than the max of day and night populations. Please modify, as appropriate.		The Technical Consultant will examine the discrepancy and make the appropriate edits to the GIS data.
28	4B	FMP	GIS feature class		24	FMP	Please remove extraneous fields from the feature class (d_FLD_TP_RIV through d_RECOMMEND).		The Technical Consultant will proceed with deleting the marked extraneous fields from the GIS data.
29	4B	FMP	GIS feature class		24	FMP		Please consider populating optional field MODEL_ID in FMP feature class.	The Technical Consultant will proceed to update the MODEL_ID field in the FMP feature class to match the HHModels spreadsheet as necessary.
30	4B	FMP	GIS feature class		24	FMP	Cumulative Estimated number of road closures (#) is 19 in the geodatabase as opposed to 10 in the Exhibit C table; In the FMP feature class. Please modify, as appropriate.		The Technical Consultant will edit the data to resolve the identified discrepancy.
31	4B	FMP	GIS feature class		24	FMP	4 recommended FMP has/have a higher total population at 1% flood risk than the max of day and night populations. Please modify, as appropriate.		The Technical Consultant will edit the data to resolve the identified discrepancy.

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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 (Preliminary)
32	4B	FMP	GIS feature class		24	FMP		Cumulative Estimated Project Cost (\$) is 4,326,840,135 in the geodatabase as opposed to 4,326,840,085 in the Exhibit C table. Please consider modifying.	The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
33	4B	FMP	GIS feature class		24	FMP		Cumulative Recurring Cost is 221,036,537 in the geodatabase as opposed to 0 in the Exhibit C table. Please consider modifying.	The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
34	4B	FMP	GIS feature class		24	FMP		Cumulative Funding Amount is 47,500,000 in the geodatabase as opposed to 0 in the Exhibit C table. Please consider modifying.	The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
35	4B	FMP Recs	Text	Section 2.5.B				FMP Count in the text was not updated from 5 to 26 to reflect new FMPs included in the amended plan. Please consider modifying.	The Technical Consultant will investigate the text and edit the data as appropriate to resolve the identified discrepancy.
36	5	FMP Details	GDB	3.10C		3.11.3 [FMP_Details]	Please reconcile discrepancies between provided values in the FMP_Details geodatabase table and the corresponding values in the FMP feature class: Project Cost (FMP_COST) contains 2 entries with discrepancies -- those entries have a total difference of \$560,010.		The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
37	5	FMP Details	GDB	3.10C		3.11.3 [FMP_Details]	Please reconcile discrepancies between provided values in the FMP_Details geodatabase table and the corresponding values in the FMP feature class: SVI (SVI) contains 24 entries with discrepancies.		The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
38	5	FMP Details	GDB	3.10C		3.11.3 [FMP_Details]		Benefit Cost Ratio (BC_RATIO) contains 1 entries with discrepancies -- those entries have a total difference of 0.01. Please consider reconciling the discrepancies.	The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
39	5	FMP Details	GDB	3.10C		3.11.3 [FMP_Details]		Cost per Structure Removed (COSTSTRUCT) contains 16 entries with discrepancies -- those entries have a total difference of \$6. Please consider reconciling the discrepancies.	The Technical Consultant will investigate and edit the data as appropriate to resolve the identified discrepancy.
40	5	FMS Recs	GIS feature class		26	FMS	Please populate the non-recurring non-capital cost field for each recommended FMS that the region would like to see in the ranked list of FMS in the State Plan.		All non-recurring non-capital costs accounted for were based on best available information and RFPG input.