

# TWDB FIF Category 1

## File Organization Guidance Document

This guidance document describes the organizational structure of the TWDB FIF Cat 1 program deliverables. All Grantees should ensure that their subcontractors follow the guidance in this document for their draft and final report submittals.

### **I. Folder Structure**

The deliverables submitted shall follow the folder structure and naming convention provided. Additional folders may be created within the main folders if necessary. All additional folders should follow a “camel case” file naming format, which is a formatting style that capitalizes the first letter of each word. File names should not contain spaces or special characters except underscores.

There is a 256-character limit for path length for Windows OS. When possible, abbreviate entity and model names in nested folders. The Grantee’s subcontractor is responsible for ensuring the longest file path length within the submittal package **does not exceed 200 characters**.

### **II. GIS File Structure for Flood Mitigation Solution Alternatives Analysis**

Several FIF Category 1 projects include a Scope Item to perform detailed alternatives analysis with the intention of identifying flood risk reduction solutions. These solutions must be categorized into either a **Flood management Evaluation (FME), Flood Mitigation Project (FMP), or Flood Management Strategy (FMS)**.

When possible and as applicable, evaluations of flood risk reduction solutions, including flood mitigation projects, should be consistent with the “Technical Guidelines for Regional Flood Planning,” Exhibit C, to Regional Flood Planning Grant Contracts and utilize the [Geodatabase](#) associated with the region that their FIF Cat 1 project is located in. **The FME, FMP, and FMS feature classes within the Geodatabase shall be utilized as needed.** Grantees are encouraged to utilize the Geodatabase structure for other project-related feature classes but are not required to do so.

The Geodatabase shall be renamed using the naming convention “RR\_FIFID\_EntityName”. The RR is the two-digit Regional Flood Planning Group number and the FIFID is the 5-digit FIF ID Project number (for example, “01\_40001\_TestCounty.”) If the project is in multiple regions, please add all regions to the name. For example, a project in both Regions 1 and 2 would be named “01\_02\_FIFID\_EntityName.” The Geodatabase shall be stored in the “02\_ShpFiles” folder within the main “03\_GIS” folder. Please also add the following field to the FME, FMP, and FMS feature classes to identify the FIF Project:

Feature Class Field	Required?	Field Name	Data Type	Guidance
FIF Project ID	Y	FIF_ID	Text	Existing TWDB FIF Project Number (5-digit project identifier, eg 40001)

Grantees shall utilize Exhibit C and D of the Regional Flood Plan Contract Documents, and the Grant Agreement's Scope of Work Alternatives Analysis language for further clarification on how to utilize the Geodatabase. Exhibit C and D can be found on the [Regional Flood Plan Working Documents](#) page, and the Alternatives Analysis language can be found in the Grant Agreement Scope of Work. The Alternatives Analysis language is also included below for reference; however, this language may vary slightly between projects and Grantees should use their Grant Agreement Scope of Work as the primary reference for this language.

Grantees are encouraged to utilize the Geodatabase structure for other project-related files but are not required to do so.

### **Alternatives Analysis Language (for projects with Alternatives Analysis):**

When possible and as applicable, evaluations of flood risk reduction solutions, including flood mitigation projects, should be consistent with "Technical Guidelines for Regional Flood Planning," Exhibit C to Regional Flood Planning Grant Contracts, which can be found at: <https://www.twdb.texas.gov/flood/planning/planningdocu/2023/index.asp>.

Each feasible flood mitigation alternatives evaluated must identify and compare cost and benefits of projects. Quantification of cost will include engineering, permitting, easement and/or property acquisition, capital cost, operation and maintenance, and other costs as applicable. Quantification of benefit of the project will include the following items, as applicable:

1. Number of structures with reduced 100-year (1% annual chance) flood risk.
2. Number of structures removed from 100-year (1% annual chance) flood risk.
3. Number of structures removed from 500-year (0.2% annual chance) flood risk.
4. Residential structures removed from 100-year (1% annual chance) flood risk.
5. Estimated Population removed from 100-year (1% annual chance) flood risk.
6. Critical facilities removed from 100-year (1% annual chance) flood risk (#).
7. Number of low water crossings removed from 100-year (1% annual chance) flood risk (#).
8. Estimated reduction in road closure occurrences.
9. Estimated length of roads removed from 100-year flood risk (miles).
10. Estimated farm & ranch land removed from 100-year flood risk (acres).  
Estimated farm & ranch land at 100-year flood risk (acres) should only include farm and ranch land that are negatively impacted by flooding events and should not include land that benefits from floodplains for example rice fields.
11. Estimated reduction in fatalities (if available).
12. Estimated reduction in injuries (if available).
13. Pre-Project Level-of-Service
14. Post-Project Level-of-Service
15. Cost/ Structure removed
16. Percent Nature-based Solution (by cost)
17. Negative Impact (Y/N)
18. Negative Impact Mitigation (Y/N)

19. Social Vulnerability Index (SVI)
20. Water Supply Benefit (Y/N)
21. Traffic Count for Low Water Crossings

The recommended solutions must be permissible, constructible and implementable.

The recommended flood risk reduction solutions must have no negative effect on neighboring areas in accordance with statutory requirements for regional flood plans (Texas Water Code § 16.062(i) and (j)(2)). Recommended flood risk reduction solutions, including flood mitigation projects, must meet the definition and requirements regarding no negative effect identified in Exhibit C to the Regional Flood Planning Contracts, Technical Guidelines for Regional Flood Planning, which can be found at:

<https://www.twdb.texas.gov/flood/planning/planningdocu/2023/index.asp>.

The flood mitigation projects identified from this FIF CAT 1 study must comply with 'no negative effect' in order to be included in the regional flood plans.

### **III. Model Structure**

All model submittals should be organized in the following manner within the "02\_Models" Hydraulic and Hydrologic folders:

Root folder (RR\_FIFID\_ModelName)

Subfolders: Model\_Files

GIS

Supporting

The Model Name should include the basin studied in the model but exclude the words "Basin" or "Watershed". For Example, a root folder may be named "RR\_FIFID\_SanGabriel."

As a suggestion, the "Model\_Files" should utilize abbreviations of the model name to avoid exceeding the file path limit mentioned in the "Folder Structure" section above.

"GIS" information subfolder should include model related shapefiles that do not fit in the main GIS folder, such as but not limited to cross sections and soils data.

"Supporting" information subfolder is a place to include any other relevant items, if desired.