

# Chapter 9: Flood Infrastructure Financing Analysis

The Texas Water Development Board (TWDB) requires each regional flood planning group (RFPG) to assess and report on how sponsors propose to finance recommended flood management evaluations (FMEs), flood management strategies (FMSs), or flood mitigation projects (FMPs). This effort's primary aim is to understand local sponsors' funding needs and what role the state should have in financing the recommended FMEs, FMSs, and FMPs. In the Lower Brazos Planning Region, 16 entities were surveyed regarding the funding of recommended actions, which they are sponsoring. These entities include cities, counties, and regional authorities. The complete list of actions recommended by the Lower Brazos Regional Flood Planning Group (RFPG) is included in Chapter 5.

## 9.1 Sources of Funding for Flood Management Activities

Communities across the Lower Brazos Planning Region utilize a variety of funding sources for their flood management efforts, including local, state, and federal sources. This section discusses some of the most common avenues of generating local funding and discusses various state and federal financial assistance programs available to communities. *Table 9.1* summarizes the local, state, and federal sources discussed in this chapter and characterize each by the following three key parameters:

- state and federal agencies involved, if applicable
- assistance with grants, loans, or both
- classified as regularly occurring opportunities or are only available after a disaster

### 9.1.1 Local Funding

Through the initial interest group outreach efforts, the Lower Brazos RFPG sought to understand the landscape of local funding for flood efforts in the Lower Brazos Planning Region. A portion of smaller, more rural communities that responded reported that they did not have any local funding sources for flood management activities. Those communities that reported local funding indicated the use of general funds, dedicated fees, such as stormwater or drainage utility fees and bonds. A community's general fund (for cities or counties) revenue stems from sales, property, and other taxes and is typically the primary funding mechanism used by a government entity to support most departments and services such as police, fire, parks, trash collection, and local government administration. Due to the high demands on this fund for many local needs, there is often not a significant amount available for funding flood management activities from the general fund.

This section primarily focuses on the funding mechanisms available to municipalities and special purpose districts, as a large majority of the FME, FMS, and FMP sponsors are these types of entities. Funding avenues for other entities, such as river authorities, are not discussed in detail.

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Table 9.1 Common Sources of Flood Mitigation Funding in Texas

Source	Federal Agency	State Agency	Program Name	Grant (G)	Loan (L)	Post-Disaster (D)
Federal	FEMA	TDEM	Hazard Mitigation Grant Program (HMGP)	G		D
Federal	FEMA	TWDB	Flood Mitigation Assistance (FMA)	G		
Federal	FEMA	TDEM	Building Resilient Infrastructure and Communities (BRIC)	G		
Federal	FEMA	TDEM	Pre-Disaster Mitigation (PDM)	G		
Federal	FEMA	TCEQ	Rehabilitation of High Hazard Potential Dam Grant Program	G		
Federal	FEMA	TBD	Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM)		L	
Federal	FEMA	TDEM	Public Assistance (PA)	G		D
Federal	HUD	GLO	Community Development Block Grant – Mitigation (CDBG-MIT)	G		D
Federal	HUD	GLO	Community Development Block Grant Disaster Recovery Funds (CDBG-DR)	G		D
Federal	HUD	TDA	Community Development Block Grant (TxCDBG) Program for Rural Texas	G		
Federal	USACE		Partnerships with USACE, funded through Continuing Authorities Program (CAP), Water Resources Development Acts (WRDA), or other legislative vehicles*			
State	EPA	TWDB	Clean Water State Revolving Fund (CWSRF)	G**	L	
State		TSSWCB	Structural Dam Repair Grant Program	G		
State		TWDB	Flood Infrastructure Fund (FIF)	G	L	

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Source	Federal Agency	State Agency	Program Name	Grant (G)	Loan (L)	Post-Disaster (D)
State		TWDB	Texas Water Development Fund (Dfund)		L	
State		TSSWCB	Operation and Maintenance (O&M) Grant Program	G		
Local		TSSWCB	Flood Control Dam Infrastructure Projects - Supplemental Funding	G		
Local			General fund			
Local			Bonds			
Local			Stormwater or drainage utility fee			
Local			Special-purpose district taxes and fees			

*\*Opportunities to partner with the United States Army Corps of Engineers (USACE) are not considered grant or loan opportunities but shared participation projects where USACE performs planning work and shares in the construction cost.*

*\*\*The CWSRF program offers principal forgiveness, similar to grant funding.*

Dedicated fees such as stormwater or drainage fees are an increasingly popular tool for local flood-related funding. Municipalities can establish a stormwater utility (sometimes called a drainage utility), which is a legal mechanism used to generate revenue to finance a city's cost to provide and manage stormwater services. To provide these services, municipalities assess fees to users of the stormwater utility system. Impact fees, collected from new development to cover a portion of the expense to expand stormwater systems necessitated by the new development, can also be used as a source of local funding for flood-related efforts. Based on the initial interest groups outreach effort, the cities of Brenham, Hewitt, Killeen, and Troy are communities that collect stormwater fees in the Lower Brazos Planning Region. No entities identified as potential sponsors for recommended actions of the plan collect dedicated fees for flood management.

Special districts are another source of local funding to support flood management efforts. A special district is a political subdivision established to provide a single public service (such as water supply, drainage, or sanitation) within a specific geographic area. Examples of these special districts include Levee Improvement Districts (LID), Water Control and Improvement Districts (WCID), Municipal Utility Districts (MUD), Drainage Districts (DD), and Flood Control Districts (FCD). Each of the different types of districts are governed by state laws, which specify the authorities and process for creating a district. Districts can be created by various entities, from the Texas Legislature and the Texas Commission on Environmental Quality to county commissioners' courts or city councils. Depending on the type, the

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districts may be able to raise revenue through taxes, fees, or issuing bonds to fund flood and drainage-related improvements within a district's area. There are numerous special districts in the Lower Brazos Planning Region. Specifically, Fort Bend County Drainage District (FBCDD), Upper Brushy Creek WCID, Lower Brushy Creek WCID, and Sienna LID have been identified as potential sponsors for recommended actions of the plan.

Lastly, municipalities and counties can issue debt through general obligation bonds, revenue bonds, or certificates of obligation, which are typically paid back using any of the previously mentioned local revenue-raising mechanisms. Based on the initial interest groups outreach effort, 18 entities in the Lower Brazos Flood Planning Region indicated that bonds are a local funding source for flood management. Of the entities identified as potential sponsors for recommended actions of the plan, FBCDD and Upper Brushy Creek WCID indicated that bonds could be used to collect the local share of funding for projects, strategies, and evaluations.

Overall, local governments have various options for raising revenue to support local flood-related efforts; however, each avenue presents its own unique challenges and considerations. It is important to note that municipalities have more authority to establish various revenue-raising options than counties. Of the communities with access to local funding, the amount available is generally much lower than the total need, leading local communities to seek out state and federal financial assistance programs.

### 9.1.2 State Funding

Today, communities have a broader range of state and federal funding sources and programs available due to new grant and loan programs unavailable five years ago. There are two primary state agencies currently involved in providing state funding for flood projects: the Texas Water Development Board (TWDB) and the Texas State Soil and Water Conservation Board (TSSWCB). *Figure 9.1* summarizes the response of local communities in the Lower Brazos Planning Region when asked what state and federal funding sources have been obtained to pay for the implementation of flood management activities. Thirty out of 85 respondents indicated that they obtained funding for flood management beyond local means, many of which listed multiple sources. It is important to note that state and federal financial assistance programs discussed herein are not directly available to homeowners and the general public. Local governments apply on behalf of their communities to receive and implement funding for flood projects in their jurisdiction.

The TWDB's Flood Infrastructure Fund (FIF) is a new funding program passed by the Texas Legislature and approved by Texas voters through a constitutional amendment in 2019. Since its inception, the FIF has committed \$406 million to 126 active and completed projects. The program provides financial assistance from low or no-interest loans and grants (cost match varies) to eligible political subdivisions for flood control, flood mitigation, and drainage projects. FIF rules allow for a wide range of flood projects, including structural and non-structural projects, planning studies, and preparedness efforts such as flood early warning systems. **After the first State Flood Plan is adopted, only projects included in the most recently adopted state plan will be eligible for funding from the FIF.** FMEs, FMSs, and FMPs recommended in this Regional Flood Plan will be included in the overall State Flood Plan and thus be eligible for this funding source. In the Lower Brazos Planning Region, the FIF was the most commonly

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referenced state funding avenue utilized by entities responding to the initial stakeholder survey results. Additionally, multiple entities specified that they obtained funding through the Category 1 FIF application (Flood Protection Planning for Watersheds).

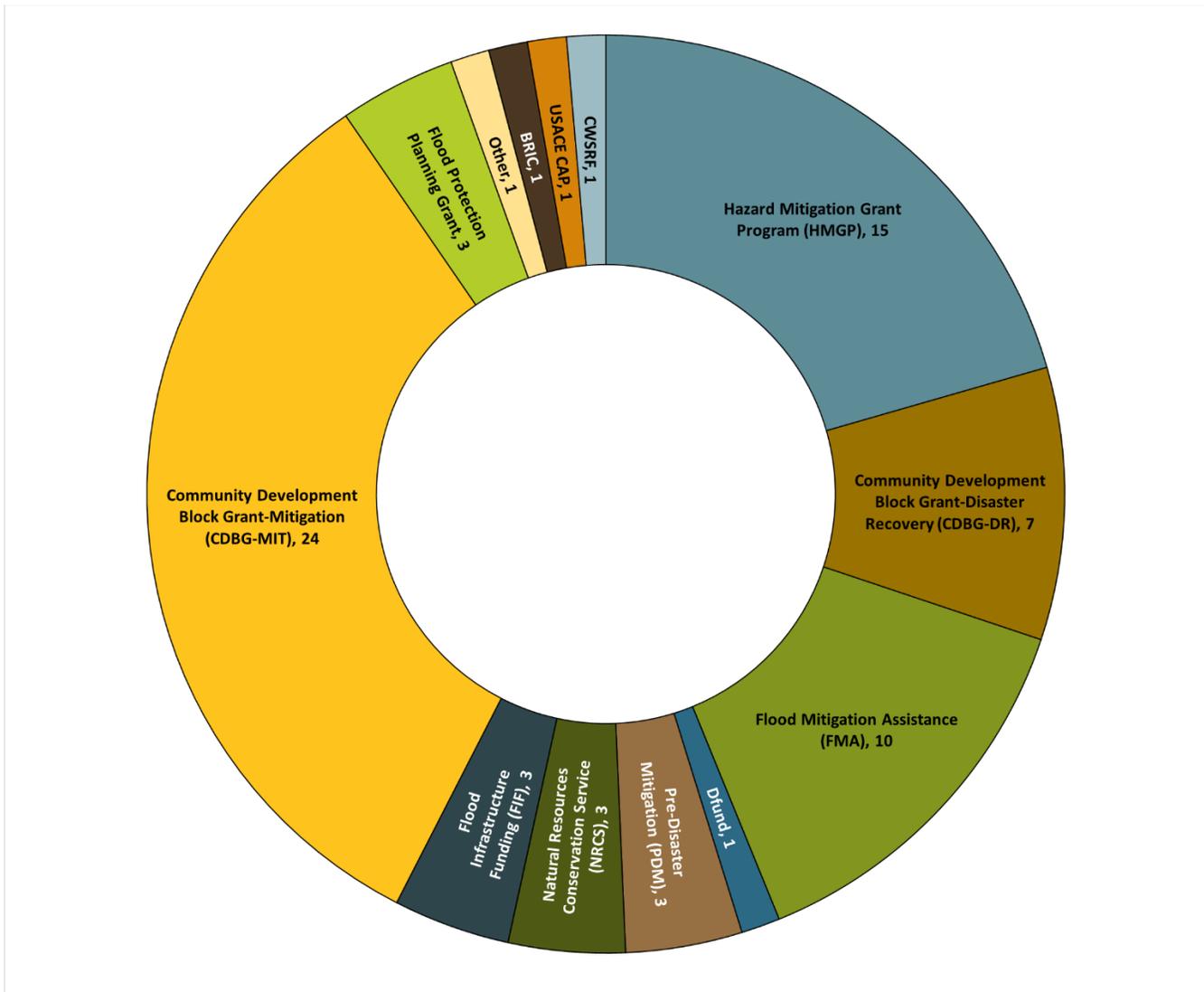
The TWDB also manages the Texas Water Development Fund (DFund) program, which is a state-funded streamlined loan program that provides financing for several types of infrastructure projects to eligible political subdivisions. This program enables the TWDB to fund projects with multiple eligible components (water supply, wastewater, or flood control) in one loan at low market rates. Financial assistance for flood control may include structural and non-structural projects, planning efforts, and flood warning systems. Based on the initial interest group survey results, the DFund has been utilized by the City of Gatesville in the Lower Brazos Planning Region.

The Texas State Soil & Water (TSSWCB) has three state-funded programs specifically for flood control dams: the Operation and Maintenance (O&M) Grant Program; the Flood Control Dam Infrastructure Projects - Supplemental Funding program; and the Structural Repair Grant Program. The O&M Grant Program is a grant program for local soil and water conservation districts (SWCD) and certain co-sponsors of flood control dams. This program reimburses SWCDs 90 percent of the cost of an eligible operation and maintenance activity as defined by the program rules; the remaining 10 percent must be paid with non-state funding. The Flood Control Dam Infrastructure Projects - Supplemental Funding program was newly created and funded in 2019 by the Texas Legislature. Grants are provided to local sponsors of flood control dams, including SWCDs, to fund the repair and rehabilitation of the flood control structures and to ensure dams meet safety criteria to adequately protect lives downstream. The Structural Repair Grant Program provides funds for 95 percent of repair costs on dams constructed by the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS). This program also provides match funding for federal projects through the Dam Rehabilitation Program and the Emergency Watershed Protection (EWP) Program of the Texas NRCS. The initial interest group survey results indicate that no Lower Brazos Planning Region entities have utilized these funding sources.

### **9.1.3 Federal Funding**

Federal funding currently accounts for a large share of total available funding for flood projects throughout the state due to greater access and availability for large funding amounts from the federal government when appropriated by Congress. As indicated in *Figure 9.1*, most funding sources referenced by entities in the initial interest group survey are federal programs. Out of 30 respondents that obtained funding from non-local resources, 28 entities utilized federal programs. Commonly utilized funding programs administered by seven different federal agencies are discussed in this section. The funding for these programs originates from the federal government, but for many of the programs, a state agency partner plays a key role in the management of the program. Each funding program has its own unique eligible applicants, project types, requirements, and application and award timelines.

**Figure 9.1 State and Federal Funding Sources Utilized by Entities in the Lower Brazos Planning Region**



### 9.1.3.a Federal Emergency Management Agency (FEMA)

Common FEMA-administered funding programs include Flood Mitigation Assistance (FMA), Pre-Disaster Mitigation (PDM), Building Resilient Infrastructure and Communities (BRIC), Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM), Rehabilitation of High Hazard Potential Dam (HHPD) Grant Program, Hazard Mitigation Grant Program (HMGP), the Public Assistance (PA) Program, and the Cooperating Technical Partners (CTP) Program.

Under the Hazard Mitigation Grant Program (HMGP), FEMA provides funding to state, local, tribal, and territorial governments to rebuild from a recent disaster in a way that reduces, or mitigates, future disaster losses in their communities. The program is administered in Texas by the Texas Division of Emergency Management (TDEM). Funding is typically a 75 percent federal grant with a 25 percent local match. While the program is associated with Presidential Disaster Declarations, the HMGP is not a disaster relief program for individual disaster victims or a recovery program that funds repairs to public property damaged during a disaster. The key purpose of HMGP is to ensure that the opportunity to take

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critical mitigation measures to reduce the risk of loss of life and property from future disasters is not lost during the reconstruction process following a disaster. This program was the most commonly referenced funding source in the initial interest group survey for the Lower Brazos Planning Region; half of the respondents who obtained non-local funding for flood management activities have utilized HMGP.

Flood Mitigation Assistance is a nationally competitive grant program that provides funding to states, local communities, federally recognized tribes, and territories. FMA is administered in Texas by the TWDB. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program. Funding is typically a 75 percent federal grant with a 25 percent local match. Projects mitigating Repetitive Loss and Severe Repetitive Loss properties may be funded through a 90 percent federal grant and 100 percent federal grant, respectively. FEMA's FMA program now includes a disaster initiative called Swift Current. The program was released as a pilot initiative in 2022 and explored ways to make flood mitigation assistance more readily available during disaster recovery. Similar to traditional FMA, the program mitigates repetitive losses and substantially damaged buildings insured under the NFIP. One-third of the initial interest group survey respondents that have obtained funding for flood management activities through state or federal programs have utilized FMA.

The Pre-Disaster Mitigation (PDM) grant makes funding available to state, local, tribal, and territorial governments to reduce risks from various natural hazards, including flooding. PDM is administered in Texas by TDEM. Funding is typically a 75 percent federal grant with a 25 percent local match, with smaller, more vulnerable communities eligible for up to a 90 percent federal and 10 percent local split. Brazoria, Falls, and Grimes counties have indicated through the initial interest group survey that they have received funding through this grant.

The Building Resilient Infrastructure and Communities (BRIC) is a new nationally competitive grant program implemented in 2020. The program supports states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is administered in Texas by TDEM. Funding is typically a 75 percent federal grant with a 25 percent local match. Small, impoverished communities and U.S. Island territories may be funded through a 90 percent federal grant and 100 percent federal grant, respectively. According to the initial stakeholder survey, the Town of Holiday Lakes has obtained funding through this program.

Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) is a new revolving loan program enacted through federal legislation in 2021 to provide needed and sustainable funding for hazard mitigation projects. The program is designed to provide capitalization grants to states to establish revolving loan funds for projects to reduce risks from disaster, natural hazards, and other related environmental harm. At the time of the publication of this plan, the program does not yet appear to be operational and has not yet been implemented in Texas.

FEMA's Rehabilitation of High Hazard Potential Dam (HHPD) Grant Program, administered in Texas by the Texas Commission on Environmental Quality (TCEQ), provides technical, planning, design, and construction assistance in the form of grants for the rehabilitation of eligible high hazard dams. The cost-share requirement is typically no less than 35 percent state or local share. According to the initial

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interest group survey, no entities in the Lower Brazos Planning Region have received funding through this program.

FEMA's FEMA Public Assistance (PA) program provides supplemental grants to state, tribal, territorial, and local governments and certain types of private non-profits following a declared disaster so communities can quickly respond to and recover from major disasters or emergencies through actions such as debris removal, life-saving emergency protective measures, and restoring public infrastructure. Funding cost-share levels are determined for each disaster and are typically not less than 75 percent federal grant (25 percent local match) and typically not more than 90 percent federal grant (10 percent local match). In Texas, FEMA PA is administered by TDEM. In some situations, FEMA may fund mitigation measures as part of the repair of damaged infrastructure. Generally, mitigation measures are eligible if they directly reduce future hazard impacts on damaged infrastructure and are cost-effective. Funding is limited to eligible damaged facilities located within PA-declared counties. According to the initial interest group survey, no entities have received funding through this program.

The Cooperating Technical Partners (CTP) program is an effort launched by FEMA in 1999 to increase local involvement in developing and updating Flood Insurance Rate Maps (FIRMs), Flood Insurance Study reports, and associated geospatial data in support of FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) Program. To participate in the program, interested NFIP-participating communities, state or regional agencies, universities, territories, tribes, or non-profits must complete training and execute a partnership agreement. Working with the FEMA regions, a program participant can develop business plans and apply for grants to perform eligible activities. The CTP program is not strictly a funding mechanism by definition, but participation in the program facilitates funding opportunities as well as updating of regulatory flood hazard information. In the Lower Brazos Planning Region, Texas A&M and the Texas A&M AgriLife Extension are CTPs.

### 9.1.3.b Housing and Urban Development (HUD)

HUD administers the following three federal funding programs: Community Development Block Grant – Mitigation (CDBG-MIT), Community Development Block Grant – Disaster Recovery (CDBG-DR), and Community Development Block Grant for Rural Texas (TxCDBG).

The Community Development Block Grant – Mitigation (CDBG-MIT) is administered in Texas by the Texas General Land Office (GLO). Eligible grantees can use CDBG-MIT assistance in areas impacted by recent disasters to carry out strategic and high-impact activities to mitigate disaster risks. The primary feature differentiating CDBG-MIT from CDBG-DR is that, unlike CDBG-DR, which funds recovery from a recent disaster to restore damaged services, systems, and infrastructure, CDBG-MIT funds are intended to support mitigation efforts to rebuild in a way that will lessen the impact of future disasters.

Following a major disaster, Congress may appropriate funds to the Department of Housing and Urban Development (HUD) under the Community Development Block Grant – Disaster Recovery (CDBG-DR) program when there are significant unmet needs for long-term recovery. Appropriations for CDBG-DR are frequently very large, and the program provides 100 percent grants in most cases. The CDBG-DR is administered in Texas by the GLO. The special appropriation provides funds to the most impacted and distressed areas for disaster relief, long term-recovery, restoration of infrastructure, housing, and

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economic revitalization. More than 40 percent of initial interest group survey respondents that have obtained funding for flood management activities through state or federal programs have utilized either CDBG-MIT or CDBG-DR.

The Community Development Block Grant for Rural Texas (TxCDBG) provides annual grants on a formula basis to small, rural cities and to counties to develop viable communities by providing decent housing and suitable living environments and expanding economic opportunities principally for persons of low- to moderate-income. Funds can be used for public facilities such as water and wastewater infrastructure, street and drainage improvements, and housing. In Texas, the CDBG program is administered by the Texas Department of Agriculture (TDA). Based on the initial stakeholder survey, no Lower Brazos Planning Region entities have received funding through the TxCDBG.

### 9.1.3.c United States Army Corps of Engineers (USACE)

The USACE works with non-federal partners (states, tribes, counties, or local governments) throughout the country to investigate water resources and related land problems and opportunities and, if warranted, develop civil works projects that would otherwise be beyond the capability of the non-federal partner(s). Partnerships are typically initiated or requested by the local community to their local USACE District office. Before any project or study can begin, USACE determines whether there is an existing authority under which the project could be considered, such as the USACE Continuing Authorities Program (CAP), or whether Congress must establish study or project authority and appropriate specific funding for the activity. New study or project authorizations are typically provided through periodic Water Resource Development Acts (WRDA) or another legislative vehicle. Congress will not provide project authority until a completed study result in a recommendation of a water resources project, conveyed via a Report of the Chief of Engineers (Chief's Report) or Report of the Director of Civil Works (Director's Report). Opportunities to partner with USACE have not considered grant or loan opportunities but shared participation projects where USACE performs planning work and shares in the construction cost. USACE also has technical assistance opportunities, including Floodplain Management Services and the Planning Assistance to States program, available to local communities. According to the initial interest group survey, the City of West Columbia is the only entity in the Lower Brazos Planning Region that has conducted a project or study under the USACE CAP.

### 9.1.3.d U.S. Environmental Protection Agency (EPA)

The Clean Water State Revolving Fund (CWSRF) provides financial assistance in the form of loans with subsidized interest rates and opportunities for partial principal forgiveness for planning, acquisition, design, and construction of wastewater, reuse, and stormwater mitigation infrastructure projects. Projects can be structural or non-structural. Low Impact Development (LID) projects are also eligible. The CWSRF is administered in Texas by the TWDB. Based on the initial stakeholder survey, the Central Texas Council of Governments has obtained funding through this program.

### 9.1.3.e U.S. Department of Agriculture (USDA)

The USDA's Natural Resources Conservation Service (NRCS) provides technical and financial assistance to local government agencies through the following programs: Emergency Watershed Protection Program, Watershed Protection and Flood Prevention Program, Watershed Surveys and Planning, and Watershed

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Rehabilitation. The Emergency Watershed Protection (EWP) program, a federal emergency recovery program, helps local communities recover after a natural disaster by offering technical and financial assistance to relieve imminent threats to life and property caused by floods and other natural disasters that impair a watershed. The Watershed Protection and Flood Prevention Program helps units of federal, state, local, and tribal government protect and restore watersheds; prevent erosion, floodwater, and sediment damage; further the conservation development, use and disposal of water; and further the conservation and proper use of land in authorized watersheds. The Watershed Surveys and Planning program focuses on funding watershed plans, river basin surveys and studies, flood hazard analyses, and floodplain management assistance aimed at identifying solutions that use land treatment and non-structural measures to solve resource problems. Lastly, the Watershed Rehabilitation Program helps project sponsors rehabilitate aging dams that are reaching the end of their design lives. This rehabilitation addresses critical public health and safety concerns. The USDA also offers various Water and Environmental grant and loan funding programs, which can be used for water and waste facilities, including stormwater facilities, in rural communities. The City of Hempstead, Pecan Grove MUD, and Upper Brushy Creek WCID indicated in the initial interest group survey that they have obtained funding through the NRCS.

### 9.1.3.f Special Appropriations

When the need is large enough, Congress may appropriate funds for special circumstances such as natural disasters or pandemics. A few examples of recent special appropriations from the federal government that can be used to fund flood-related activities are discussed in this section.

In 2021, the American Rescue Plan Act (ARPA) provided a substantial infusion of resources to eligible state, local, territorial, and tribal governments to support their response to and recovery from the COVID-19 pandemic. Coronavirus State and Local Fiscal Recovery Funds (SLFRF), a part of ARPA, delivers \$350 billion directly to state, local, and tribal governments across the country. Some of the authorized uses include improving stormwater facilities and infrastructure. Although not a direct appropriation to local governments like ARPA, the 2021 Infrastructure Investment and Jobs Act (IIJA), also called the Bipartisan Infrastructure Law (BIL), authorizes over \$1 trillion for infrastructure spending across the United States and provides for a significant infusion of resources over the next several years into existing federal financial assistance programs as well as the creation of new programs.

### 9.1.4 Barriers to Funding

As opposed to other types of infrastructure, flood projects do not typically generate revenue, and many communities do not have steady revenue streams to fund flood projects, as noted in *Section 9.1.1*. Consequently, communities struggle to generate funds for local match requirements or loan repayment. Complex or burdensome application or program requirements and prolonged timelines are barriers to accessing state and local financial assistance programs. Of those communities able to overcome these barriers, apply for funding, and generate local resources to match requirements, the high demand for state and federal funding, particularly for grant opportunities, means that need outstrips supply, leaving many local communities without the resources they need to address flood risks. Through participation in

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the initial interest group survey, entities in the Lower Brazos Planning Region identified several barriers to obtaining funding for flood management activities:

- lack of knowledge of funding sources
- lack of expertise to apply for funding
- lack of local funds available for local match requirements
- not meeting the requirements of the program

Of the 31 respondents that mentioned specific difficulties in obtaining funding, 19 entities indicated that they do not meet the requirements of the programs, and 11 entities indicated that they lack knowledge of what funding sources exist. These barriers were the two most common in the Lower Brazos Planning Region. Conversations with several communities in the region show that areas of high flood exposure but low social vulnerability have difficulty meeting application requirements. This issue will likely require further effort to ensure that these communities can obtain funding for flood management. The Social Vulnerability Index (SVI) is utilized in the plan as a proxy for resilience to natural disasters. SVI is defined in section 2A.3 of Chapter 2 and summarized by county in *Map 7 in Appendix 0*.

Regarding lack of local funding, knowledge, or expertise, each of these barriers can be mitigated through public involvement in the regional and state flood plans, as RFPGs can efficiently assist entities with their flood management needs rather than leaving it up to communities using local resources that may not be available. Generally, many previously mentioned difficulties in obtaining state and federal funds will be improved by implementing the Regional Flood Plans in Texas.

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### 9.2 Flood Infrastructure Financing Analysis

#### 9.2.1 Flood Infrastructure Financing Survey Methodology

The flood infrastructure financing analysis required obtaining relevant information from sponsors of the recommended FMEs, FMSs, and FMPs with capital costs. This effort's primary aim was to understand local sponsors' funding needs and propose the role state and federal programs should have in financing the recommended FMEs, FMSs, and FMPs.

The RFPG collected information from sponsors by creating a survey via email. An example of the sponsor survey is shown in *Figure 9.2*.

As part of the survey, a personalized table of recommended FMEs, FMSs, and FMPs was generated for each sponsor. The table included the identification number, type, name, description, and total estimated cost for each FME, FMS, and FMP listed. For FMSs lacking accurate cost estimates, input was solicited from the potential sponsor. After receiving the email, sponsors could provide the financing information, a percentage of the project to be financed by the sponsor, and other funding needed for each FME, FMS, and/or FMP.

Options for anticipated sources of sponsor funding included:

- taxes
- general revenue
- dedicated revenue inclusion fees
- entity budget/funds
- donations
- bonds/other financing
- other
- TBD

The Flood Infrastructure Financing survey was sent to 16 sponsors of recommended FMEs, FMSs, and FMPs with capital costs identified. Five of the 16 entities surveyed responded, representing a response rate of 31 percent.

**Figure 9.2 Example of the Flood Infrastructure Financing Survey**

Dear Vanessa Shrauner –

On behalf of the Lower Brazos Regional Flood Planning Group (RFPG), we are reaching out because City of Jarrell is listed as a potential sponsor for one or more Flood Mitigation Project (FMP), Flood Management Evaluations (FMEs) or Flood Mitigation Strategies (FMSs) that will be recommended for implementation in the Region 8 Lower Brazos Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

***Please reply to this email and fill out the drop-down menu in the table for each of your Flood Mitigation Projects, Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas.*** If we do not receive a response, we will assume that 100% of the cost for that action will need funding (including State, Federal and/or other funding).

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
81000934	FME	Low Water Crossing Monitoring & Mitigation	Install automated warning devices or elevate 2 low water crossings on CR 305.	\$217,000	Choose an item.	Choose an item.
81000936	FME	Lift Station Floodproofing	Flood proof city lift stations or improve culverts to lessen flood risk.	\$217,000	Choose an item.	Choose an item.

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 8 - Draft Planning Documents](#). Additional information about the regional flood plan can be found on the [Lower Brazos RFPG website](#).

We kindly request a reply **no later than Thursday, June 17, 2022** in order to meet the State’s legislative deadline for flood planning. Thank you for your input on this important project.

### ***9.2.2 Flood Infrastructure Financing Survey Results***

Overall, there is an estimated \$4.6 billion in state and federal funding projected to be needed to implement the recommended FMEs, FMSs, and FMPs in the Lower Brazos Regional Flood Plan. This number does not represent the amount of funding needed to mitigate all risks in the region and solve flooding problems in their totality. This number simply represents the funding needs for the specific, recommended studies, strategies, and projects in this cycle of regional flood planning. Appendix 9.1 presents the survey results for each FME, FMS, and FMP. The response rate for the survey does not represent a significant percentage of respondents. It, therefore, does not accurately represent the total need for state and federal funding in the Lower Brazos Planning Region. To conservatively estimate remaining funding needs, the Lower Brazos RFPG will assume no local cost share for entities that did not respond to the survey. With additional time provided in the second cycle of regional flood planning, it is anticipated that a greater response rate may be obtained.